AF191212 Mus muscu AC073459 Homo sapi AL68383 Mouse DNA AC142180 Rattus no AC129766 Rattus no BY208714 NR43 216 BC009288 Homo sapi CQ727361 Sequence AX353492 Sequence AX353492 Sequence AX353492 Sequence AX53192 Sequence AX53192 Sequence AX5518 H sapiens mory AX667954 Sequence U01146 Rattus nory AX67766 Sequence U01146 Rattus nory SS3776 Sequence U01146 Rattus nory SS3776 Sequence HONGRI-NWIRT NORT SS3776 Sequence U01146 Rattus nory SS3776 Sequence U01146 Rattus nory SS3776 Sequence

OM nucleic

Run on:

Sequence:

Searched:

Database

Result . 8

```
L08595 Rat nuclear
BC066890 Homo sapi
X77154 TINUR- NGFI
X3345415 Sequence
BC076176 Danio rer
BC056025 Xenopus 1
BC072138 Xenopus 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (30-NOV-1995) Naganari Ohkura, National Cancer Center
Submitted (30-NOV-1995) Naganari Ohkura, National Cancer Center
Research Institute, Growth Factor Division; 5-1-1 Tsukiji, Chuo-ku,
Tokyo 104-0015, Japan (B-mail:nohkura@gan2.ncc.go.jp,
Tel:81-3-3542-2511(ex.4302), Fax:81-3-3542-8170)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Bukamalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 3802)
Ohkura,N., Ito,M., Tsukada,T., Sasaki,K., Yamaguchi,K. and Miki,K. Structure, mapping and expression of a human NOR-1 gene, the third member of the Nur7/NGFI-B family
96404972
                                                                                                                                                                                                                                                                                         ال 1360 مانا همانا (Alocar PRI 07-
Homo sapiens NOR-1 mRNA for neuron derived orphan receptor,
complete cds.
                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/chromosome="9"
                                                                                                       RNU72345
AX067954
AX827766
RRU01146
                                                                                                                                                           EC038520
RATRNR1X
BC066890
S77154
         AC073459
AL683893
AC12180
AC129766
BV208714
BC009288
CO727361
A37795
AX253492
HSNOT
                                                                                                                                                                                               AX345415
BC076176
BC056025
BC072138
                                                                                                                                           S53744
AR177670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="brain"
/dev_stage="fetus"
1. .3802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     732. .2612
/gene="NOR-1"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene="NOR-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene="NOR-1"
                5 2
                                                                                                                                   10
                                                                                                        10
                                                                                                                                                             10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /map="9q22"
                                                                                                                                                                                                                                                                                                                                     D78579.1 GI:1651190
                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 3802)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .3802
                2559
2129
2469
8805
2169
2618
2738
          Ohkura, N
                                                                                                                                                                                                                                                                                                                                                                                                                                              8809112
                                                                                                                 937.4
926.6
761.4
746.2
746.2
601.2
                                                                                                                                                                                                                                                                                                 LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5'UTR
                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                             PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                               RESULT
D78579
υ υυ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AR380383 Sequence
S81243 CHN=steroid
E10601 cDNA encodi
AX587468 Sequence
D38530 Rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AJ011767 Sus scroft
X88894 H. sapiens m
AX587466 Sequence
AF191211 Mus muscu
AL358937 Human DNA
CQ723907 Sequence
AJ011768 Sus scroft
AJ59710 Human DNA
X86003 R. norvegicu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BC068150 Mus muscu
                                                           March 21, 2005, 03:55:35 ; Search time 15968 Seconds (without alignments) 11512.969 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AX329720 Sequence
U12767 Human mitog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D78579 Homo sapien
E12854 cDNA encodi
                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                 1 ataaatgacgtgccgagaga........gtgtgagtactaggaaggat 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                9416466
         GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                             4708233 seqs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SSC011768
AL359710
RNRNALRBF
                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                            nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B12854

#X329720

#X329720

#X32973

AX380383

$81243

E10601

AX587468

RATNOR1

BC068150

SSC011767

HSNUCREC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AX587466
AF191211
AL358937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CQ723907
                                                                                                                                 IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length DB
                                                                                               US-10-608-863-1
3794
                                                                                                                                                                                                                                                                      99b htg: *
99b htg: *
99b on: *
99b ov: *
99b ph: *
99b ph: *
99b ro: *
99b ro: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3802
4907
4907
20114
20114
20114
4400
5586
5186
1884
146884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1619
1606
174140
4275
                                                                                                                                                                                                                                                              GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3722
                                             ı
```

PRI 07-NOV-2001

N

us-10-608-863-1.rge

```
1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1618
                                                                                                                                      958
                                                                                                                                                                960
                                                                                898
                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCCGTCGCCGCCCAGCAGAGCTCGTCGTCTGGCGAGGGCACGTGTGCCGTGTGCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCCTTCCCCTCCAGGTTCCAGTT
                                                                                                                                                    GCATCAGTACCTTCGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGT
                                                                                                                                                                                           TGAAGGCGGTCCCCACGTGGCGCGCGCGCTTCCCGCTTTCCACTTCAAGCCCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCCGCATCCCCCCGCGCCCGAGCCCGGCGGCGGCCACCACCACGCTACGACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGCTGCCGCCTCAGCCTGCGCTGGGAGCCGCAGCCGCCGCGGGCAGCCAAGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGCTGCCGCGCTCAGCCTGCCGCTGGGAGCCGCAGCCGCCGCCGCGGGCAGCCAGGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCTTGAGGGCCACCCGTACGGCTGCCGCTGGCCAAGAGGCGGCCCCGCTGGCCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAGAACAGTGCAGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAA
                                                                                  AGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGGCCACCACGTCCCTGCCCA
                                                                                                                                     GCATCAGTACCTTCGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGT
                                                                                                                                                                                                                                                                                                                                                         ACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAAGGCGGTCCCCACGGTGGCCGGCGCGCGTTCCCGGCTCTTCCACTTCAAGCCCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCTTGAGAGCCACCCGTACGGGCTGCCGCTGGCCAAGAGGGGGCCCCCGCTGGCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCTCTCGGCCTCACGCCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cecercricescercadecereceradescerecaseereseresesesasaseee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCCGTCGCCGCCCAGCAGGAGCTCGTCGTCTGGCGAGGGCACGTGTGCCCGTGTGCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAACGCCCCCCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCA
                                                                                                                                                                                                                                                                                                                                                                                                               ACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCGCCGA
                                                                                                                                                                                                                                                1019
                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                     1079
                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                           1139
                                                                                                                                                                                                                                                                                                                                                                                                               1199
                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1801
  721
                             779
                                                     781
                                                                                  839
                                                                                                           841
                                                                                                                                      899
                                                                                                                                                                901
                                                                                                                                                                                            959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1739
                                                                                                                                                                                                                     961
                   $ B $
                                                                                                    g
                                                                                                                                     8 8
                                                                                                                                                                                 8
                                                                                                                                                                                                            원
장
                                                                                                                                                                                                                                                                 g &
                                                                                                                                                                                                                                                                                                                       8 & 8
8
                                                                                                                                                                                                                                                                                                                                                                                                     8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  $ B $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                상 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                    / LTATAL 1 OLD = "MPCVQAQYSPSPPGSSYAAQTYSBEYTTEIMNPDYTKLTMDLGS
TEITATATTSLPSISTFVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHH
HHHHHQOQQQPSISTPASSPEDEVLESTSMYEKQSPSTPTTPAFPPQAGALWDEAL
PSAPGCIAPPGAASSPEDEVLESTSMYEKQSPSPPPPABPAGGHHLGYDPAA
AALSLPIGAAAAAGGAAALEGHPYGLPLAKRAAPLAFPPLGLTPSSTASSILGESP
LPSPPSRSSSGEGTCAVGGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNC
PVDKRRRNRCQYCRFQKCLSVGMYKEVVRTDSLKGRRGRLFSKPKSPLQQEPSQPSPP
                                                                                                                                   SPPICMMALVRALTÖSTPRDLDYSRYCPTDQAAAGTDAEHVQOFYNLLTASIDVSRS
WARRI PGFTDLDKREDQTLLISSAFLELFVLRLSIRSNYABENFYFVCHYLHRLQCLR
GFGBWLDSI TOPSLANLQSLANLDIQALACLSALSMITRRHGLKEPKVBELCINK TSSI
KDHQSKQQALEPNESKVLVALVBLRKI CTLGLQRI FYLKLEDLVSPPSI IDKLFLDTL
                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                            178
                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           778
                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                    CGCCCGCAGCTGGACCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                ATAAATGACGTGCCGAGAGAGCGAACGCGCAGCCGGGAGAGGGGGGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                          ACTTCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCGTGGTCACAGCCCAAGCCAGGACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCGGAACCTCTCGGCTGTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACTCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCACAGGACTCAAAGCCCACTGCGGAAAAGGGCAGCCCGGCAAGCCCCGGGCCCTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGACCCTTAGCGGTGCCGGGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGACCCTTAGCGGTGCCGGGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCTACACTCTCAGCCTCCGCTGGAGAGACCCCCAGCCCCACCATTCAGCGCGCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCTACACTCTCAGCCTCGCTGGAGAGACCCCCAGCCCCATTCAGCGCGCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCCTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTT
                                                                                                                                                                                                                                                                                                                  ATAAATGACGTGCCGAGAGAGCGAGCGAACGCGCAGCCGGGAGAGCGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                      CCCGCCCCCCACCCTCCAGCTCCTGCTCCTCCGCTCCCCATACACAGACGCGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTICGCICICCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cerecaderecadedecedecenterececerecadedecadecadedecede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCGGAACCTCTCGGCTGTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACCGCCTCCGGGAGCCGCTGGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTCCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCACAGCACTCAAAGCCCCACTGCGGAAGAGGGCAGCCCGGCAAGCCCGGGCCTGAGC
                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                       .,
8
                                                                                                                                                                                                                                                             Length 3802;
  orphan receptor"
                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                       15;
                                                                                                                                                                                                                                                             9.
                                                                                                                                                                                                                                                            Score 3722; DB Pred. No. 0; 0; Mismatches
/product="neuron derived
/protein_id="BAA11419.1"
/db_xref="G1:1651191"
                                                                                                                                                                                                      2613. .>3802
/gene="NOR-1"
                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.4%;
Matches 3779; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541.
                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           719
                                                                                                                                                                                                       3'UTR
                                                                                                                                                                                                                                  ORIGIN
```

g &

원 수 명

g ò g ò 8 6 8 6 8 6 8 6

\$ B \$

g ò ద ò

000   000	E12854 E12854 LOCUS LOCUS LOCUS LOCUS LOCUS LOCUS LOCUS LOCUS LOCUS ACCESSION E12854 LGI:3251686 KENYORDS JP 1997084555-A/1. SOURCE Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

ACTOGETCTAAAGACGGAACCGCCACAGCACTCAAAGCCCACTGCGGAAGAGGGCCCCGGCCCCCCCC		1119   CACCTCCATGTACTTCAAGCAGTCCCCACCCCCCCCCCC	1299   CTTCCACTTCAAGCCCTCGCCGCCTCCCCCGGCCGGCCGG	1479 GGCGGCCCGCTGGCCTTCCCGCCTCTCGGCCTCCCCTACCGCGTCCAGCCT 1538
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		\$ 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	8 8 8 8 8	60 60 60 60 60 60 60 60 60 60 60 60 60 6
AUTHORS Ookura,N., Ito,M. and Miki,K.  TITLE NUCLEAR RECEPTOR GENE ASSOCIATED WITH DIFFERENTIATION OF CEREBRAL JOURNAL PRICE TIPLE NERVE CELL AND NUCLEAR RECEPTOR JOURNAL TERUMO CORP OS Home sapiens (human) PN 97 1937084585-A/1 PD 31-MAR-1997 PF 21-SEP-1995 JP 1995242909 PT 00KURA NAGANALI, ITO MIKIKO, MIKI KEIZABURO PC C12N15/09,C07H21/04,C07K14/705//A61K38/00,(C12N15/09, PC C12N1:91) CC strandedness: Double; CC ctopology: Linear; CC topology: Linear; CC hypotherical: No; CC anti-sense: No; FF Key FT 60urce //tissue_type='Home sapiens' FT 7 cource //tissue_type='Home orphan FT FT 7 cource //tissue_type='Home orphan FT FT 7 receptor,NOR-1' FT 8 receptor,NOR-1' FT 9 receptor,NOR-1'	FT Location/Que ce 1.3762 / Organism="r / mol_type="g / db_xref="re / db	Matches 3728; Conservative 0; Mismatches 24; Indels 10; Gaps 43 GAGCGAGTCTCCTGCTCCCCCCCCCCCCCCCCCCCCCCC	121	391   AGCCCAAAGGCACGCGCGGGGAAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGGATC 360

2339 MANCTHCHTHTHTHTCGCCCTTTTCCTCCAAACCCAAAACTTCCAAG 2760 2319 MANCTHCHTHTHTTTTCGCCCTTTTCAACCCAAAACTTCCAAACTTCCAAG 2760 2319 MANTTHTTTCAACCCATTCAACAATTCCTAACAACTCCTTTTCAACAA
6 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4
1559   GORCHICLANGGOCCTHTTCOARGARAANTCCAAAAATCCAAAAATCTTGCTGCC

GCCAGCACTACGGCGTGCGAACCTGCAAGGGCTTTTTCAAGAGAACAGTGC 169 GCCAGCACTACGGCGTGCGAACCTGCAGGGCTTTTTCAAGAGAACAGTGC 169 GCCAGCACTACGGCGTGCGGAGGGCTGCAGGAGCTTTTTCAAGAGAACAGTGC 105 AGAAAAATGCCAAATATGTTGCCTGGCCAATAAAACTGCCCAGTAGAAGAAGAGCGTC 175 AGAAAAATGCAAATATGTTTGCCTGGCAATAAAAACTGCCCAGTAGAAGAAGAACGTC 111 GGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTTCAGTGTTAGAAAAGAAG 181 [	1811 TIGTCCGTACAGATAGTCTGAAAGGGAGAGAGTCGTCTGCCTTCCAAACCAAAGAGCC 1870	1931 CCCTTGTCCGAGCTTTAACAGACTCCAGAGATCTTGATTATTCCAGATACTGTC 1990 1294 CTCTTGTCCGAGCTTTAACAGACTCAACACAGAGATCTTGATTATTCCAGATACTGTC 1950 1295 CCCTTGTCCGAGCTTTAACAGACTCAGAGATCTTGATTATTCCAGATACTGTC 1353 1991 CCACTGACCAGGCTGCTGCAGCCACAGTCCTGAGCATGTGCAACATTCTACAACCTCC 2050 1354 CCACTGACCAGGCTGCAGGCACAGATGCTGAGCATGTGCAACATTCTACAACCTCC 1413 2051 TGACAGCCCTCATTGATGTATCCAGAAGATGCTGGAAAAGATTTACTGATC 2110		GACTITICAL CAGINARY CONTROLL C	CCTTAAATTTGGGGGGCCTGAACCTTGATATCCAAGCCTTAGCCTGCCT	TAAAGACCACCAGAGTAAGGACAGGCTCTGGAGCCCACCGAGT 247	2531 TCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGATAGCAGCTTTCC 2590 1894 TCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTTTCC 2590 1894 TCTTCTACTGAAGCTGGAAGACTTGGTGTCTCCACCTTTGACAAGCTTTCCTTTCCTTTTTTTT
6 6 6 6 6	8 8 8	8 8 8 8	a & a a	8 8 8 8	8 & 8 &	8 6 8	6 6 6 6 6 6
,	0 11 0 11	o m o m '		50 . 10	3 3 3 3	0 2 3 00	3 2 0 2 3 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3'UTR /974. 4977  /gane="MINOR"  polyA_signal 4933. 4958  polyA_site /977  /gene="MINOR"  /gene="MINOR"  /note="8 A residues"  /note		ACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT 91	334 GGCCCTTGATCAAAGTGGAGGGGGGGGGCCCAGCTACCATCACCACCACCACCACCACCACCACCACCACCAC	1091 CCAGCCGGAGGACGAGGTGCTCCAACTTCAAGCAGTCCCCAACGT 115	1211   CCTCGGCCCCGGCTCCATCGCACCCGCTGCTGGACCCGCCGATGAAGGCGGTCC   1270	1331   CCGCGCCCAGCCGGCCGCCACCTCGGCTACGACCCGACGGCCGCTGCTGCTGCT39	ACCCGTACGGGCTGCCGCTGGCCAAGAGGCGGCCCCGCTGGCCTTCCCGCCTCTCGGCCTGCCGTTACGGGCTGCCTGC

Db 3140 GAAGGAT 3146	RESULT 5 AR380383 LOCUS LOCUS DEFINITION Sequence 928 from patent US 6607879. ACCESSION AR380383 VERSION AR380383.1 GI:40088017	Unknown. Unknown. Unclassified. 1 (bases 1 to 2714)	AUTHORS Cocks, B.G., Stuart, S.G. and Seilhamer, J.J.  TITLE Compositions for the detection of blood cell and immunological response gene expression  JURNAL Patent: US 6607879-4 9 228 19-AUG-2003;	ource	core 2689.6; DB 6; Length 271.	132 TCACTCGCACACACACACACACACACACACACACACACAC	192 GCGCGCTCACCCCTCTTGCCCTGAGCCCTTGCCGGTGCGCGCGC		312 ACGCGCGCGCGCCCCCCCCCCCCGGGCGGGCCGGCGGCGG	372 GGCTGTGCTCTCCCCCTTGCGGATCGCAGCCCCACCACCCCCCCC	432 GGCIGIGCTCCCCAIGAGICGGGGAICGCCAGCCACCCCCCCCCC		552 AAAGCCCACTGCAGAAAAGGCCCGAGCAAAGCCCGGGCCCTGAACCTGGACCTTAAGC 552 AAAGCCCACTGCAGAAAAAGGGCAACCCGGCAAAGCCCGGGCCCTGAACCTGGACCTTAAGC [	439 AAMSCCCACIGGGGAAGAGGGCCGGGCAAGCCCGGGGCCCIGAGCCIGGACCTIAGGC 612 GGTGCCGGCAGCACCACCACCACCGCCTCGCCGACGTCCCCTCCTACACTCTC	499 GGIGCCGGGCGGCCGGCGGCTTCGCCTCGCCGGGCGCTCCGCTCCTC	559 AGCCTCGGCTGGAGAGCCCCCAGCCCTTCGGCGCCCAGGCGCCCTGGATAT  732 GCCCTGCGTCCAATATAGCCCTTCCCTTCCAGGTTCCAGTTATGCGGCGCGAGAC  [	Db 619 GCCCTGCGTCCAAGCCCAATATAGCCCTTCCAGGTTCCAGTTATGCGGCGCAAAC 678  Qy 792 ATACAGCTCGGAATACACCCACGGAGATCATGAACCCCGACTACACAAGCTGACCATGGA 851
	ACAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGGTTGTGTTTTATATTTAGGC 283	2194 ATTGGGGGATGGGGTGGAGGGGGTTAFAGTTCATGAGGGTTTTCTAAGAAATTGCTAAC 2253 2891 AAAGCACTTTTGGACAATGCTATCCCAGCAGAAAAAAAAGGATAATATAACTGTTTTAA 2950 2254 AAAGCACTTTTGGACAATGCTATCCCAGCAGAAAAAAAGGATAATATAACTGTTTTAA 2313	2951 AACTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACAGCCAAGG 3010 	3011 GTTGTTCGCCAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAAATATGCTTCCTGTA 3070 	3071 TCAAAGGTACGTATGTGGTGCAAACAAGCAGAAACTTCCTTTTAATTTCCTTCTTCTT 3130	3131 TATTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCAGACATGGCAAAACAATA 3190 	OY 3191 ATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTAAAGTGCTGTCTTACTAAGTCTTG 3250	OY 3251 TTTATTAACTCTCTTTATTCTATATGGAAATAAAAAGGAGGCAGTCATGTTAGCAAATG 3310	Oy 3311 ACACGTDAADATCCTAGCAGAGGTGTGTTCACCTTCCCTGTCGATCGTTCTGAGGTA 3370	OY 3371 TGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCTGCCTG	OY 3431 AGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTATCTGTTTTGGTTGTT 3490	OY 3491 TCTATCAACCCCACCAGAGTTCCCTAAACTTGCTTCAGTTATAGTAACTGACTG	Oy 3551 TCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATC 3610	3611 AGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTTTATAGATATAAT 3670 	Qy 3671 TTAATITTTGTTATGGTTAAGGAGACAATTTTGGAGAGCAAATCTTTTTAAA 3727 	Qy 3728 AAATAGTATGAATGTGAATACTAGAAAAGATTTAAAAAATAGTATGGGTGTGAGTACTAG 3787 	Oy 3788 GAAGGAT 3794

8 6 8 6 8 6 8 6 8

1759 ATTACAACAGAACTTCTCAACCCTCCTCCCCAACATTTCTCCCAATTCTCCCAATTCTCCCAATTCTCCCC 1891   1819 CCTTGTCCGAACTTTAACAACTCAACCCCAACATTTTCCCAATTCTCCCC 1893   1819 CCTTGTCCCAACTTTAACAACTCAACCCCAACATTTTTCCAAATTCTCCCAATTCTCCC 1893   1819 CCTTGACCACCTTCATCATTCTCAATTCTCAAACATTTTACTCAATTCTCCCC 1893   1819 CCTTGACCACCTTCATCATCTCAATTCCCAACAACTCTCCCCTTTTAACACTCTCC 1993   1819 CCTCCAACAACATCATCATCATCATCATCTCAACACTCTCCCCTTTTAACACTCTCCTC	RESULT 6 S81243 LOCUS LOCUS DEFINITION CHN-steroid/thyroid orphan receptor homolog gene [human, fetal DEFINITION CHN-steroid/thyroid orphan receptor homolog gene [human, fetal ACCESSION S81243 VERSION S81243.1 GI:1311504 KEYWORDS SOURCE HOMO sapiens ORGANISM HOMO sapiens
	1752   ARACCGATGTCAGTACTGTCAATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGT   1811   1619

678

851

731 618 791

```
CCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCTT
                                                                                                                                                                                                                                                                                                                                                                CGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGCCCACTGCGGAAGAGGCAGCCCGGCAAGCCCGGGCCCTGAGCCTGGACCCTTAGC
                                                                                                                  GGTGCCGGGCACTTCCGCCTTCGCCTCCCCGGACGTCCGCTCCTACACTCTC
                                                                                                                                                   AGCCTCCGCTGGAGAGACCCCCCAGCCCACTTCAGCGCGCAAGATACCCTCCAGATAT
                                                                                                                                                                  CGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                 GCCCTTGATCAAAGTGGAGGGGGGGGGGCCCCAGCTACCATCACCATCACCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCCCGGAGGACGAGGTGCTGCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGGAGTCCCCACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCGGCGCCCGGCTGCATCGCACCGGCCCGCTGCTGGACCGCCGCCGATGAAGGGGGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCGGTACGGGCTGCCGCTGGCCAAGAGGGCGCCCCCGCTGGCCTTCCCGCCTCTCGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACGCCCTCCCCTACCGCGTCCAGCCTGCTGGGGGGGGTCCCAGCCTGCCGTCGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCAGGAGCTCGTCGTCTGGCGAGGCCACGTGTGCCGTGTGCGGGGACACGCCGCCTG
                                                                                                  GGTGCCGGGCAGCACTGCCGCCTTCGCCTCGCCGGACGTCCGCTCCTACACTCTC
                                                                                                                                                                                                                                                                          679 ATACAGCTCGGAATACACCACGGAGATCATGAACCCCGACTACACCAAGCTGACCATGGA
                                                                                                                                                                                                                                                                                                                                                                                                    GCCCTTGATCAAAGTGGAGGGGGGGGGGCGCCCAGCTACCATCACCATCACCACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACCCCCACGCCGCCCTTCCCCCCCGCAGGCGGGGCGTTATGGGACGAGGCACTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACCCCCACCACGCCGGCCTTCCCCCCGCAGGCGGGGGGGCGTTATGGGACGAGGCACTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           credececedecredaredeacecedecedecreeredacecedeceardaaedecegreee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCGCCCAGCCCGGCCGCCGCCACCTCGGCTACGACCCGACGCCGCTGCCGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cedecedadecedecedecedecacencedenación de accedecedecedeceden
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCGTACGGGCTGCCGCTGGCCAAGAGGGCGCCCCCCCTGGCCTTCCCGCTCTCGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACGCCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCAGCCTGCCGTCGCCGCC
                                                     <u> AAAGCCCACTGCGGAAGAGGGCAGCCCGGCAAGCCCGGGCCCTGAGCCTGGACCCTTAGC</u>
                                                                                                                                                                                                                                                                                                    CCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCCTGCCGCTGGGAGCCGCAGCCGCCGCGGGCAGCCAGGCCGCCGCCGCGCTTGAGAGCCA
                                                                           439
                                                                                                                                                   672
                                                                                                                                                                                                                                                                                                                           739
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1339
   492
                            379
                                                   552
                                                                                                   612
                                                                                                                           499
                                                                                                                                                                                                    732
                                                                                                                                                                                                                           619
                                                                                                                                                                                                                                                   792
                                                                                                                                                                                                                                                                                                  852
                                                                                                                                                                                                                                                                                                                                                   912
                                                                                                                                                                                                                                                                                                                                                                           799
                                                                                                                                                                                                                                                                                                                                                                                                   972
                                                                                                                                                                                                                                                                                                                                                                                                                           859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1572
   8 6
                                          ò
                                                                     엄
                                                                                                 ò
                                                                                                                   셤
                                                                                                                                            ò
                                                                                                                                                                       셤
                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                    엄
                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                             8 8 8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ብ ራ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음 수 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                  ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     78
                                                                                                                                                                                                              1. 72714
/gene="cRN"
/note="steroid/thyroid orphan receptor homolog gene; rat
NOR1 homolog"
  Craniata, Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                           443. .2497 // Gene="CHN" / Gene="CHN" / Once="Eteroid/thyroid orphan receptor homolog gene; No start codon was found, N-terminal of protein truncated k chromosomal breakpoint 2 nucleotides 5' of first (Pro)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleoston Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 2714)
Clark,J., Benjamin,H., Gill,S., Sidhar,S., Goodwin,G., Crew,J. Gusterson,B.,. Shipley,J. and Cooper,C.S.
Fusion of the EWS gene to CHN a member of the steroid/thyroid oncogene 12 (2), 229-235 (1996)
8570200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAGCGGGGGATCCTCCCCCTGGTCACAGCCCAAGCCAGGACGCCCGGGGAACCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GECTGTGCTCTCTCCCATGAGTCGGGATCGCAGCATCCCCCCACCACCAGCTCACCAGCTCACCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGCCGTGGAGGTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAGCGGCGGCATCCTCCCCCTGGTCACAGCCCAGGACGCCCGCGCGGAACCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCGCTCACGGCCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                        GenBank staff at the National Library of Medicine created thi
entry (NCB gibbsq 176289) from the original journal article.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 2714;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 2689.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                      /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
1. .2714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.9%;
Matches 2692; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              432
                         REFERENCE
AUTHORS
                                                                                   JOURNAL
MEDLINE
PUBMED
REMARK
                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                             CDS
                                                                                                                                                  FEATURES
                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
```

1151 1038

1031

798

971

911

1091

1098 1271 1331

1391

1451

8 8

8 ઠે g

8 8 õ

g ઠે g

ઠે

6 6 6 6 6 6 6 6 6 6 6

Qy         3464 GATTACATGTTTTGGTTGTT-TCTATCAACCCCAGAGTTCCCTAAACTTG         3522           Db         3471 GATTGCATATGACTGTTTTGTTTCAACCTGGACAGAGTTCTCTAAACTT         3530           Qy         3523 CTTCAGTTATAGACTGACTGTTTTTCATCAGAGCGCCATAAGTCTGT         3575           Db         3531 CTTTAGTTGTAGCAGTTCCTCGATTCAGAGAGCCCAAGGAGATTGGGTACTGGT         3590           Qy         3576 TGAGTATTGATCCTCGATACGAACATCCAGAGAGCATTGGGTACTGGGTACTGGAGAGT         3634           Db         3591 CGATCAAGGGTTAACCCTAGGAGAACATGCAAATAAGGAACTGGGTCAGAGGGTA         3636           Qy         3635 AGCACCAGGGACAATAAGAACATGCAAATAAGGAACTGGGTCAGACAGGGTA         3650           Qy         3638 AGCACCAGGGACAATAAGAATTATATATATATATATATAATATAATATATATATATAT	RESULT 8 AX587468 LOCUS AX587468 LOCUS DEFINITION Sequence 3 from Patent W00246391. ACCESSION AX587468.1 GI:27656292 KEYWORDS SOURCE Rattus norvegicus (Norway rat) ORGANISM Rattus norvegicus (Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryota; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;	REFERENCE 1 AUTHORS Guenther, C. and Allen, K.D. TITLE Transgenic mice contraining nori gene disruptions TITLE Transgenic mice contraining nori gene disruptions JOURNAL Patent: WO 0246391-A 3 13-JUN-2002; Deltagen, Inc. (US) FRATURES Location/Qualifiers Location/Qualifiers Location/Qualifiers  ONGONIGIN  / Mol_type="unassigned DNA" / db_xref="taxon:10116"	Query Match         65.9%; Score 2500; DB 6; Length 4400;           Best Local Similarity 83.4%; Pred. No. 0;         No. 0;           Matches 3131; Conservative 0; Mismatches 535; Indels 90; Gaps 22;         Qy           46 GGAGTCTCCTGCCTCCGCCCCCCACCCCTCCAGCTCCTCCTCCTCCTCCTCCTAT 105         Db           1 CGAGTCTCCTGCCTCCCGCCCCCACCCCTCCAGCGCCTGCTCCTCCTCCTCCTCCTCTCTCT	Qy         106 ACACAGACGCGCTCACCCGCTCCCTCACTCGCACACAGAGACACACAGGCGCACACAG         165           b		Qy         279 CTGACGGTGCCGCATGGCGAACTGGGAACGGGGGATCCTCCCCCCTGGTC 338           Db         241 CTGACAGAGGGGGCGGCGTGGAACGTGGGAAACGTGGGAAACGTCTAGCCCTGGTC 300           Qy         339 ACAGCCCAAGCCGGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGATC 398           Db         301 GCAGCCGGAACTTGGACGCCTTCGGCTTTCCCATGAGTTGGGATC 359
2334 CACAGAGCGACATGAGTTAAAAGAACCAAAGAGAGGGGGGGG	2717 AAAGCAGCTCCTGTAGAAAGCAAAGACTTTTTTTTTCTGCCTCTTTTCCTTACAACC 2776 2693 AAAGCAGCTCCCATAGAAAGCAAAGACTTT-TTTTTCTGGCACTTTTCCTTACAACC 2751 2777 TAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTTTTATATTTTAGCCATTGGG 2836 2752 TAAAGCCAGAAACTTGCAGAGTATTGTGTTGTGTTTTATATTTTAGGCATTGGG 2836 2752 TAAAGCCAGAAACCTTGCAGAGTATTGTGTTGTGTTTTATATTTTAGGCTTTGGT 2811 2837 GGATGGGGTGGGAGGGGTTATAGTTCATGAGGGTTTTTTATATTTAGCTAACAAAG 2894 2812 GGGTGGGGTGGGAGGGGTTATAGTTCATGAGGGGTTTTTTATATTTTATATTTAGGT 2811 2817 GGATGGGGTGGGGGGGTAAAATAGTTCATGAGGGTTTTTTTATATTTTATATTACTAACAAAG 2894 2812 GGGTGGGGTGGGGGTAAAATAGTTCATGAGGGCTTTTTTTAAGAAATTGCTGACGAAG 2871	2895 CACITITGACAATGCTATCCCAGCAGGAAAAAAGGATAATATAACTGTTTT 2948  2872 CACITITGGATGATCCTATCCCAGCAGTGGGGGGGGGGGAAAAATATAACTGTTTT 2931  2872 CACITITGGATGATCCTATCCCAGCAGTGGGGTGGGGGAAAAAAAA	3066 CTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAA	3174 GACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGC 3233 3171 GACTTAGCAAAATGATAATGGCTATTGGCTTCCACATACAAGTGCAATTTTTAGAGTGC 3230 3234 TGTCTTACTAAGTCTTGTTTAATAACTCCTTTATTTTAGAAAAAGAGGC 3293	TGTCTTACTAGTCATGTTTGTGAACTCTCCCTCATTTTATATGAAATAAGAAGGGGGGCACCTTGTTATATGTAAAATAAGAAGGGGGGCACCTTTTATATGAAAATAAGAAGGGGGGGG	3354 CGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGAT 3413  3351 AGAACCCTTCGGAGGTATGGCCCTTCTAAGACTTTCAGGCCACTCTTGATGGAATTCGAC 3410  3414 CCCTGCCCTGACTGTCCAGCTATCCTGAAGTGGATTATAAACTG 3463  3411 ACCCTCCCTCCAACCCTATCCAGATGCGATGGGATCAAAATGGGATTATAAACTG 3463  3411 ACCCTCCCCTCAACCCATGACTATCCAGATGGGGATCAGGGTTATAAAATG 3470

6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6

B & B & B & B &

9 6 B

1458 CGGGCTGCCGCTGGCCAAGAGGGGGGCCCCGCTGCCCTCCGGCCTCACGGC 1517	1638   CTACGGCGTGCGAACCTGCAAGGGCTTTTTCAAGAGAACAGTGCAGAAAA   1697	1758 ATGTCAGTACTGCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGTTGTCCG 1817 1734 ATGTCAGTACTGCAGGTTTCAGAAGTGTCTCAGTGTCGCGATGGTGAAGGAAG	1878 ACAGGAACCTTCTCAGCCTCTCCACCTTCTCCTCCATTCTGCATGATGAATGCCTTGT 1937 1854 ACAGGAGCCCTCGCAGCCCTCCCCACCATCTCTCTGCATGATGAACGACCCTTGT 1913 1938 CCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACTGTCCCACTGA 1997 1914 CCGAGCTTTAACAGACCCAACACCCCAAGACCTTAATTACTCCAGATATTTCCCACTGA 1973	CCAGGCTGCTGCAGGCACAGATGCTGAGGCAAGTCTACAACCTCCTGACAGC  [	AGAAGATCAGACATACTTATTGAGCATTTTTTGGAGCTGTTTGTCCCCCAAAAAAAA	2178 CATCAGGTCAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCCATCG 2237		2358 CACAGAAAGACTTAAAAGAACCAAAGAAGCTATGCAACAACTATGCAACAACAACAACAACAACAACAACAACAACAACAACAA	2478 CCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTA 2537 [
6 6 6 6 6	8 8 8	<b>ኞ</b> 8 8 8	8 8 8 6	8 8 8 8	8 & 8	8 6 6	\$ 8 8	à a à a	6 6 6
								······································	
399 GCAGCATCCCCACCAGCCGCTCACCGCCTCGGGAGCCGCTGGGCTTGTACACCGC 455	CCCGGCAAGCCCGGGCCTGAGCCTTAGCGGTGCCGGTGCCGGAGCCCCCCCC		CACGGAGATCATGACCCGACTACACCAGCTGACCATGGACCTTGGCAGCACTGGAGATTACCAGCGAGATTACCAGCAGAGATTACCAGCAGAGATTACCAGCAGAGATTACCAGCATGGACCTTGGCAGCACTGGAGATTACCAGAAAATCATGAACCTCGACTAGAACTGAACCTCGAAAATCATGAACCACCAGCATCCAGCACCAGCATCGAGAGTGGCAGCACCAGCATCGAGATTCGAGAACTTCGAGAACTACCTAC	840 CATGGCCACGGCACCACCAGCTACAGTTCAGTACCTTCATGGAGGGTACCCCAG 899 930 CAACTACGAACTCCAGCGTGTACCAATGCAGCGGCCCTT 977	960 GATCAAGATGGAAGAGTCGCGACATGGTTACCACCACCACCACCACCACCATCATCATTCAT		1134 GACCACTCCAGGCTTCCCCCCCGCAGGGGGCTGTGGGGACGACGAGCTGCCCTCTGC 1193 1218 GCCCGGCTGCATCGCACCCGCCCGCTGCTGACCCGCGATGAAGGGGGTCCCCACGGT 1277 1194 GCCTGGCTGCATCGCTCCGGGGACCGCTGGACCCGCAGATGAAGGCAGTGCCCCCAAT 1253	1278 GGCCGGCGCGCTTCCGCTTTCAGCCCTCGCCGCCGATCCCCCCGGCC 1337	1314 CAGCCCAGCGGCCACCACCACCTGGGCTATGACCCCACGGCCGCAGCTGCGCTCACTCT 1373  1398 GCCGCTGGGAGCCGCCGCGGGGCACCAGGCCGCCGCGTTGAGAGCCACCGGTA 1457

Db   3591   CGATCAAGGGTTAACCCTAGGAGAACATGCAAATAAGTAGGAACTGGGTCAGACAGGTA 3650	RESULT 9 RATNOR1 LOCUS LOCUS RATNOR1 LOCUS DEFINITION Rattus norvegicus mRNA for NOR-1, complete cds. ACCESSION D38530 VERSION D38530 VERSION NOR-1; neuron derived orphan receptor; thyroid/steroid receptor	superfamily. Rattus norvegicus (Norway rat) SM Rattus norvegicus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eut Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; M 1 (sites)	AUTHORS ONAUTA'N., hllakuro, and machina.  TITLE Molecular cloning of a novel thyroid/steroid receptor superfamily gene from cultured rat neuronal cells JOURNAL Biochem. Biophys. Res. Commun. 205 (3), 1959-1965 (1994)  MEDLINE 95110348  PUBMED 7811288  REPERENCE 2 (bases 1 to 4400)	Cancer Ce	Research Institute, Growth Factor Division; 5-1-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan (E-mail:nohkura@gan2.ncc.go.jp, Tokyo 104-0045, Japan (E-mail:nohkura@gan2.ncc.go.jp, Tel:81-3-3542-2511(ex.4302), Fax:81-3-3542-8170)  COMMENT On Aug 8, 1996 this sequence version replaced gi:643599.  FEATURES Location/Qualifiers  source 1. 4400  /organism="Rattus norvegicus"	] 	/codon_start=1 /prodot==NOR-1" /protein_id="BAA07535.1" /db_xref="G1:64360" /translation="MPCVQAQYSPSPPGSTYATQTYGSEYTTEIMNPDYAKLTMDLGS	TGIMATATTSEPSTEMBGYESSCEKKPSCLYQMPPSGRPBIT IKMEGSREHGYHHHH HHHHHHHHHHHHQQQQPSIPPPSGPBDEVLPSTSWYFKQSPSTFTTPGFPPQAGALMDD BLDSARGCIARCPBLACAPANAAARFPTFFRESPPHPRASPAGGHHLGYDPT AAAALSLPLGAAAAGSQAALEGHPYGLPLAKRTATTFPPGLTASFTASSLLGES PSLPSPPNRSSSGGGTCAVCGDNAACQHYGVRTCGGCKGFFKRTVQKNAKYVCLANK NCPVDKRRRNRCQYCRFOXCLSVGMVKEVVRTDGCKGRFKRTVQKNAKYVCLANK NCPVDKRRRNRCQYCRFOXCLSVGMVKEVYRTGGCKGRRGRLSSRPLQQEPSQPS PPSPPTCMMVKTAVATTDATPRDLDVSSCYCTDQATAGTDABGRUPSKPKSPLQQEPSQPS PPSPPTCMMVKTAVATTDATPRDLDVSSCYCTDQATAGTDABGRUPSKPKSPLQCEPSQPS	LEGEGENLIDSTEDERLESST	Query Match 65.9%; Score 2500; DB 10; Length 4400; Best Local Similarity 83.4%; Pred. No. 0;
	2717 AAAGCAGCTCCTGTAGAAAGCATTCTTTTTTTTCTGGCTCTTTTTCTTACAACC 2776  [		2012 CACITITICGALCATICCAGGA TOCCAGGA TOCCAGGA TATA A A A A A A CTCTTTCTGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACGCC 3006  2949 AAAAACTCTTTCCGGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGACAGCC 3006  2932 AAAAACTCTTTCCGGGGGAATATGACTATGGTTGCTTTGTATTTAAAAATAAGAACACCC 2991  3007 AAGGGTTG-TTCGCCAGGGTAGGATGTCTTAAAAGATTGGTCCCTTGAAAATATGCTTC 3065		TAATITCCTICTTCCTTAATTITAACAAATGGTGAAAGATGGAGGAGGAGTACCTACAAATCA	3171 GACTTAGCAAAATGGTAAATGGCTATTCGCTTCCACATACAAGTGCAATTTTTAGGGTGC 3230 3234 TGTCTTACTBAGTCTTGTTTATTAACTCCTCTTTATTCTATAGGAAATAAAAGGAGGC 3293	AGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTGTTCACCTTCC 	3354 CGATCCCTTCGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGACCAGAT 3413 3351 AGAACCTTCGGAGGTATGGCCTTCTAAGACTTTTCGGACCACTCTTGATGGATTCGAC 3414 CCCTGCCCTGACTGCCAGCTGCAAGATTATAAACTG 3463   A	3464 GAITACAIGIAACTGITITGGITGTCT-TCTAICAACCCCACAGAGITCCCTAAACTIG 3522	3576 TGAGTATTTGATCCCTAGATAAGAACATGCAAAATCAGCAGGAACT-GGTCATACAGGGTA 3634

1098 GGAGGACGAGGTGCTGCAGGACCTCCATGTACTTCAAGCAGTCCCCACCGTCCACCCC 1157  1074 CGAGGACGAGGTACTGCCCAGCACCTCCATGTACTTCAAGCAGTCTCCGCGTCTACGCC 1133  1158 CACCACGCCGCTTCCCCCGCAGGCGGGGGGGTTATGGGAGGAGTCTCGGCTTCGGC 1217  1134 GACCACTCCAGGCTTCCCCCGCAGGCGGGGGGGTGTATGGGAGGAGCACTGCCTTCGGC 1217  1134 GACCACTCCAGGCTTCCCCCGGAGGGGGGGGGGTGTGGGAGGGGGCCCTTTGGTGGAGGGGGGGTCCCTTTGGTGGAGGGGGGGG	125 133 131 139 137 143	158   CGGGCTGGCCGAAGAGGGGGGCCCGCTGGCCTTCGGCCTTCGGCCTTCAGGCTTCGGCCTTCAGGCTTGGCCTTCAGGCTTGGCCTTGGCCTTGGCCTTGGCCTTGGCCTTGGCCTTGGCCTTGGCCTTGGCCTTGGCCTTGGCCTTGGCCTCAGGCTTGGCGTGGCCTCAGGCTTGGCGTCGGCGCTCAGGCTTGGCGTGGCGTCGGCGCTGGCGCTGGCGCTGGCGCTGGCGCTGGCGCTGGCGCTGGCGGC	98 TGCAAATATGTTTGCCTGGCAATAAAACTGCCCAGTAGACAAGAGACGTCGAAACCG	1938 CCGAGCTTTAACAGACCCTCCCCACCATCTCCTCCGATCTGATGATGACCCCCTTGT 1912  1938 CCGAGCTTTAACAGACTCCAACACCCAGAGATCTTGATTATTCCAGATACTGTCCCACTGA 1997  1918 CCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATACTGTCCCACTGA 1997  1919 CCGAGCTTTAACAGACACAGACGCCCAGAGACCTTCTACACCTCCTCACAGA 1973  1919 CCAGCCACTGCAGACAGACGCCAGAACATTCTACAACCTCCTCAACAGA 1973  2058 CTCCATTGATGTATCCAGAGCTGGCAGAAAAGATTCCGGGATTTAACTGATCTCCCCAA 2117  2059 CTCCATTGATGTATCCAGAGCTGGGCAGAAAAAGATTCTCGGGATTTTACTGATCTCCCCCAA 2093  2011 AGAAGATCAGACGTGGGCAGAAAAAAAAAAAAAAAAAAA
6 6 6 6 6		6 6 6 6 6 6 6	3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	8 6 8 6 8 6 8 6 8
•				
Matches 3131; Conservative 0; Mismatches 535; Indels 90; Gaps 22;   46 CGAGTCTCCTCCCCCCACCCCCACCCCCCCCCCCCCCCC			630 CGCGGGCCCGGGGCCTGGACCCTCCACACAGGGGGGGCGGCGGCGGCGGCGGCGGCGGCGGCG	1020 TCATCACCACCACCACCACCACCACCACCACCACCACCAC

```
983
                                                                                                                                                                                                                                                                                                                                                                1043
                                                                                                                                                                                                                                                                                                                                                                                                               1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1504
                                                              989
                                                                                      544
                                                                                                             746
                                                                                                                                     604
                                                                                                                                                              806
                                                                                                                                                                                                                                                                                       784
                                                                                                                                                                                                                                                                                                                                                                                       904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1444
                                     484
                                                                                                                                                                                                              998
                                                                                                                                                                                                                                                              926
                                                                                                                                                                                                                                                                                                                                                                                                                                         964
              8 B S
                                                                              ద
                                                                                                    ò
                                                                                                                               셤
                                                                                                                                                            ઠે
                                                                                                                                                                               g
                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                             8 G
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                              8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                  8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                        VIH-MGC Project URL: http://mgc.nci.nih.gov
Conteact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. James Lin, University of Iowa
Tissue Procurement: Dr. James Lin, University of Iowa
Tissue Procurement: Dr. James Lin, University of Iowa
CDNA Library Preparation: M. Bento Soares, University of Iowa
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: University of Iowa, Dr. M. Bento Soares and Dr.
Thomas L. Casavant.
Web site: http://genome.oua.edu; tom-casavant@uiowa.edu
Conteact: bento-soares@uiowa.edu; tom-casavant@uiowa.edu
Bonaldo, M.F., Akabogu, I., Bair, T., Bair, J., Crouch, K., Davis, A.,
Fishler, K., Keppel, C., Kucaba, T., Lebeck, M., Melo, A., Schaefer, K.,
Scheetz, T., Smith, C., Snir, B., Tack, D., Trout, K., Walters, J.,
Casavant, T., Soares, M.B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTTGCAACGCTGACAGAGCCCGCAGTGTCCGTGGAGGTGGGGAAACGTGGCGACATCCTA 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGGCAGCCCGGCAGCCCGGGCCCTGAGCCTTAGCGGTGCCGGGCAGCA--- 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTCTAGAAACTCGCTCTAAAGACGGAAACCGCCACAGCACTCAAAGCCCCACTGCGGAAG 568
                                                                                                                                                                                                                                              Clone distribution: MGC clone distribution information can be foun through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: Plate: Row: Collum: 0
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 7657396.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63
Direct Submission
Submitted (15-MAR-2004) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCCTGGTCGCAGCCGGAGACTGCGTGCGGGAACCTCTCGGCGGCGCTCTCCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTGCAACGCTGACGGTGCCGGCGTGGCCGTGGAGGTGGGAACAGCGGCGGCATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCACCGCAGCCCTTCCGGGACAGCTGTGTGTTTCCCCCCAATCCAGATTTCGGGGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTCTAGAAACTCGCTCTAAAGACGGAACCGCCACAGCACCCAAAGCCCACTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCGCAGCCCGACAAAGCCCGGGCGCTGAGCCTGGACCCTCAGCAGAGCGGGCCAGCACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGAGCCCTTGCCGGT-----GCAGCGCGCGCCGCAGCTGGACGCCCCTCCCGGGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCCCTGGTCACAGCCCAAGCCAGGACGCCGCGGAACCTCTCGGCTGTGCTCTCCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTCGGGATCGCAGCATCCCCCACCAGCCGCTCACCGCCTCCGGGAGCCGCTGGCCTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10; Length 5586;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 2474.2; DB 10; Lengt
Pred. No. 0;
0; Mismatches 553; Indels
                                                                                                                                                                                                                                                                                                                                    /organism="Mus musculus"
/mol type="mRNA"
/strain="C57BL/6"
/db xref="taxon:10090"
/clone="IMAGE:30534822"
/tissue type="Brain"
/clone_Tib="NIH BMAP_G10"
/lab host="DH10B"
/note="Vector: pYX-ASC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 82.9%;
Matches 3025; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                569
TITLE
JOURNAL
                                                           REMARK
COMMENT
                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             а
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ያ
ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     કે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

1042 1102 1023 1083 1402 1462 745 805 865 843 963 543 603 663 925 724 GGATCATGGCCACCGCCCTACATCCCTGCCCAGCTTCAGTACCTTCATGGAGGGCTACC 783 982 723 CCAGCAGCAGCAGCACCACCACCACCAAATGCCGCCTTCTGGGCCTCGGC 844 CTTTGATCAAGATGGAAGAGGTCGCGAGCATGGCTACCACCACCACCACCATCACCATCACC TCCCGCTGGCCAAGAGGACGGCCACGCTGACCTTCCCTCCGCTGGGCCTCACAGCCTCCC CGGCTGCTTCGCCTATCCCGACGTCCCCGCCTCCTACACTCTCAGCCTCCGCTGGAG AGACCCCCAGCCCCACCATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGCGTGCAAG 664 ACACCACAGAAATCATGAACCCCGACTACACCAAGCTGACCATGGACCTCGGTAGCACGG ATCATCACCACCACCACCAGCAACAGCAGCCGTCCATTCCTCCTCCTCCGCCCGAGG CTCCAGGCTTCCCCCCGCAGGCGGGGGCGCTGTGGGACGAGCTGCCCTCTGCGCCTG GCTGCATCGCACCCGGCCGCTGCTGGACCCGCCGATGAAGGCGGTCCCCCACGGTGGCCG CCACCGCGTCCAGCCTGCTGGGAGAGAGCCCCAGCCTCCCATCGCCACCCAAAAGGAGCT CGTCGTCTGGCGAGGCCACGTGTGCCGTGTGCGGGGACAACGCCGCCTGCCAGCACTACG AGACCCCCAGCCCCATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGCGTCCAAG cechararacecerreacerecesserecarraceceasserrarsecressar AGATCACGCCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCTTCGTGGAGGGCTACT CGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGCGGCCCTTG---ATCA ACCACCATCACCAGCAGCAGCATCAGCAGCCATCCATTCCTCCAGCCTCCAGCCCGGAGG CGCCGGCCTTCCCCCCCGCAGGCGGGGGGTTATGGGACGAGGCACTGCCCTCGGCGCCCC GCTGCATCGCTCCGGGACCGCTGCTGCACCCGCAGATGAAGGCGGTACCCCCCATGGCCG crecrececetroccearcricarectricalectrica CTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCAGCCTGCCGTCGCCGCCCCAGCAGGAGCT CCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGCGCAGACATACAGCTCGGAAT CGGCCGGCCGCCACCTCGGCTACGACCCGACGCCGCTGCCGCGCTCAGCCTGCCGC TGGGAGCCGCAGCCGCGGGGGAGCCAGGCCGCCGCGCTTGAGAGCCACCCGTACGGGC TGCCGCTGGCCAAGAGGCGGCCCCCGCTTCCCGCCTCTCGGCCTCACGCCCTCCC

Db 264  Oy 283  Oy 294  Oy 294  Oy 294  Oy 310  Oy 312  Oy 312	Sus scrofa mRNA for neuron-derived orphan receptor-: transcription factor.
1733 ANTAIGTITICACTICACINALIMAMATCICCOMOTAGANACCICCOMACCONTICCITIC 1223 1743 AGAICTICACICCOCOMATINAMATCICCOMACCONACCOCOMACCONTICCITIC 1223 1753 ANTAICTICACICCOCOMATINAMATCICCOMACCONACCOCOMACCONTICCITIC 1223 1854 AGAICTICACACCOCTCACACTTCACACTTCACACACACTTCACACACA	2777 TAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTTTTATATTTAGGCATTGGG 2836

```
1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGAACCTGCGAGGGCTGCTATTTCAAGAGAAAAGTGCAGAAAAATGCAAAAATAT 1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTTGCCTGGCAAATAAAACTGCCCAGTAGACAAGAGACGTCGAAACCGATGTCAGTAC 1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    970 ---CGGCCCTTGATCAAAGTGGAGGGGGGGGGGCGCCCAGCTACCATCACCATCACCAC 1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                918
                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841 GCCGCCGCCGCAGAGCAGTCAGGCCGCCCCCAGAGGCCAACCCCATACGGCTGCCA 900
                                                                                                                                                                                                                                               241 AGCACCGAGATCACGGCCACTGCTACAACGTCCCTGCCCAGCTTCAGTACCTTCATGGAG 300
                                                                                                                                                                                                                                                                                                                             301 GGCTACTCCAGCAACTACGAACTCAAGCCTTCCTGCCTGTACCAATGCAGCCGTCGGGG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1066 ---CAGCAGCCATCCATTCCTCCAGCCTCCAGGAGGACGAGGTGCTGCCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGCCAAAAGGGCGGCGGCGCGCTGGCCTTCTCGCCGCTGGGCCTCACGACCTCCCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961 ACGTCCAGCCTACTGGGCGAGAGCCCCAGCCTGCCGTCTCCGCCCAACAGAGAGCACCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1588 TCTGGCGAGGGCACGTGTGCGGGGACAACGCCGCCTGCCAGCACTACGGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTGGAGAGACCCCCAGCCCCACCATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGC
                                                                         GTGCAAGCCCCAGTATAGCCCTTCGCCTCCAGGTTCCAGTTATGCAGCCCAGACATATGGC
                                                                                                                               TCGGAATACACCACGGAGATCATGAACCCCGACTACACCAAGCTGACCATGGACCTTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481 CAGCAGCCATCCATTCCGCCCCCTCCGGTCCGGAGGAGGAGGTGCTGCCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1123 TCCATGTACTTCAAGCAGTCCCCACCGTCCACCCCCACCACGCCGGCCTTCCCCCCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGGGGGGTTATGGGACGAGGCACTGCCCTCGGCCCCGGCTGCATCGCACCCGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ecededecectrores da sa consecuente de consecuente d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661 crecrceacceceareaadecesreceacedreceecececececececerrecerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTACGACCCGACGCCGCTGCCGCTCCAGCCTGCCGCTGGGAGCC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---GCAGCCGCCGCGGCCAGCCGCCGCGCTTGAGAGCCACCCGTACGGGCTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1528 GCGTCCAGCCTGCTGGGGGAGGTCCCAGCCTGCCGTCGCCGCCCAGCAGGAGCTCGTCG
                                                                                                                                                                          181 TCGGAATACACCACAGAGATCATGAATCCTGACTACACCAAGCTGACCATGGACCTTGGC
                                                                                                                                                                                                                    AGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCTTCGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          919 GGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1708
                                                                                                                                 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1303
                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
      61
                                                                                                                                                                                                                      859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                               ઠે
                                                                              a
                                                                                                                        õ
                                                                                                                                                                     셤
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Badimon, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                 Euteleostomi;
Sus.
  AJ011767
AJ011767.1 GI:3821742
neuron-derived orphan receptor-1 alfa; NOR-1 gene; transcription
factor.
                                                                                                                                                                                            Cases-Langhoff,C., Castello,A., Martinez-Gonzalez,J. and Badimon, De-differentiated smooth muscle cells in atherosclerotic plaques express NOR-1 Unpublished
                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (08-OCT-1998) Castello A., Patologia Molecular y
Terapeutica, Instituto de Investigaciones Blomedicas, C.S.I.C.,
Jordi Girona, 18-26, Barcelona, 08034, SPAIN
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTGGAGAGCCCCCAGCCCCACCATTCAGCGCGCAGGATACCCTCCAGATATGCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels 114; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 5115;
                                                                                                                                 Chordata, Craniata, Vertebrata,
Cetartiodactyla, Suina, Suidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62.5%; Score 2371; DB 4;
llarity 87.4%; Pred. No. 0;
Conservative 0; Mismatches 295;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="NOR-1"
/function="transcription factor"
/note="alfa transcript"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="mRNA"
/db xref="taxon:9823"
/cell_type="activated smooth
/tissue_lib="smooth muscle"
1. .5115
/gene="NOR-1"
/1. .11
/gene="NOR-1"
/1. .11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="alfa transcript"
3545. .3550
/gene="NOR-1"
/note="alfa transcript"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="alfa transcript"
2168. .2173
/gene="NOR-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .5115
/organism≃"Sus scrofa"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DLVSPPSIIDKLFLDTLPF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                codon start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2044. .5115
/gene="NOR-1"
                                                                                                                                                                                                                                                                                 2 (bases 1 to 5115)
Castello, A.
                                                                                                                                 Eukaryota; Metazoa;
                                                                                                                                                   Mammalia, Eutheria;
                                                                                     Sus scrofa (pig)
Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Simi
Matches 2832;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  619
                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                          JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3'UTR
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOS
                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
```

540

9

9

1410

1467

1080

g ઠે

ò

1020

Oy 2824 TTTAGGGATTGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2460 3055 2518 3114 2578	3172 2638 3232 2697 3292 2755	Oy 3350 CTGTCGATCCTTCTGA Db 2815 CCATAGAACTCTTCTGA QY 3410 AGATCCCTGCCTGACC QY 3470 ATGTAACTGTTTGGT QY 3470 ATGTAACTGTTTTGGT Db 2927 GTACGGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	OY 3581 AITTGATCCCTAGATAL Db 3047 GTTTGATCCCCAGATAL OY 3641 AGGGACAATAGGATT Db 3107 AGGGATAATAGGATT OY 3700 TTTTGGAGAGCAAGTG Db 3167 TTTGGAGAGCAAGTG OY 3759 I 3759 Db 3227 I 3227	HSNUCREC HSNUCREC LOCUS HSNUCREC DEFINITION H.sapiens mRNA for
TGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGTTGTCCGTACAGATAGT	1948 ACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACTGTCCACTGACCAGGCTGCT 2007	2128 ACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTCCTCAGACTTTCCATCAGGTCA 2187	CTGAACCTTGATATCCAAGCCTTAGCCTGCTGTCAGCACTGAGCATGATCACAGAAAGA		TTCCTTATGACTGAAAGCCAGAAACTTACAGAGTATTGTGTTGGGGTTGTGTTTATA
8 8 8 8 8	8 6 6 6 6	8 8 8 8 8	8 8 8 8 8 8 8	6 8 8 8 8 8 8 8 8	ga ,

 3	2824 TTTAG       2281 TTTAG 2884 TGCTA	TITAGGCAITGGGGGATGGGAGGGGGTTATAGITCATGAGGGITTTGTAAGAAAT	2883 2339 2934
	340		ת ת
o c	2935 AATAT       2400 AATGT	aatataactgititaaaactctttctggggaatccaattatagttgctttgtattaaaa 	2994 2459
 & a	2995 ACAAG	ACAAGAACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGA 	3054
	055	AAATATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAACAAGGCAGAAACTTCCTTT-	~
	518	TACTICTICITATECAAGGGTACATATGTGGTGCAAAAAAAAGCAGAAATTCCCTCTT	
2y 3	114 578	TAAITICCTICTICCTTCTTAITTTAACAAATGGTGAAAGAIGGAGGATTACCTACAAAT 	3171 2637
oy and	3172 CAGAC           2638 CGGAC	cagacatggcaaaacaataatggctgtttgcttccataaacaagtgcaattttttaaagt 	3231
Qy 3.	232	GCTGTCTTACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAAGGAG 	3291 2754
33	292		3349
Db 2.	755	candanadedadedandenaantrineenadaddaddednigheeac	2814
Oy 3	350	CTGTCGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACC 	3409
. 3 3	410	AGATCCCTGCCCTGACTGTCCCGGAAAGTGGATCAGATTATAAACTGGATTAC	3469
Db 2	874	ccieccieAeciectiraaaadadacicadairaraaagagariac	2926
e c	470		3529
9 6	126	GCITITITIGICGCITICIAIAAAICCAGCCAGAITICCCIAAACIIGCITCAAI TABACTGGCTATATTCATTCAGAAGCGCCATAA	2586
	987	TATGGTAACAGACTGACATTCATTCAGAAGCCCCAAGAGCATTCAGTGAATTTCAAGT	9 4
Qy 3	581	ATCCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACC	3640
Dp 3	47	GTTTGACCCCAAGATAAGAACATGCAAATAAGTAAGAATGGATCATACAGGGTAAGCACC	3106
Qy 3	641	agggacaataaggatttt-tatagatataatttaattttgttattggttaaggagaga	3699
Db 3	3107 AGGGA	TAATAAGTTTTTTAAATATATATATTTTAATTTTTTATCAGTTAAAGAGACAA	3166
	700	TTTTGGAGGCAAGCAAATCTTTTAAAAA	75
3 Dp 3	167	GAGAGCAAGTGATTCTTATTAAAAATTAGTGTGAATGTGAGTACTAGAAAGGAT	3226
č Va	3759 T 375	6	
Db 3	227 T		
RESULT 12 HSNUCREC LOCUS DEFINITION	HSNUCREC H.sapiens	C 2546 bp mRNA linear PRI 22-JAN- ns mRNA for nuclear receptor.	.1996

480

702

660

600

762 720 822

```
CCGGGACAGCAGCTGTGACTCCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTC
                                                                                                                                                           GCTCTAAAGACGGAAACCGCCACAGAGCCCCACTGCGGAAGAGGGGCAGCCCGGCA
                                                                                                                                                                                                                                                                                                                   ATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGCGTCCAAGCCCCAATATAGCCCTTCC
                                                                                                                                                                                                                                                                                                                                                        CCTCCAGGTTCCAGTTATGCGGCGCAGACATACAGCTCGGAATACACCACGGAGATCATG
                                                                                                                                                                                                                                                                                                                                                                      961 CCCAGCTACCATCACCATCACCACCACCACCACCACCACCACCATCACCAGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGGGGCTTATGGGACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATCCCCCACCAGCGGCTCACCGCCTCCCGGGAGCCGCTGGGGCTTGTACACCGCAGCCCTT
                                                                                         CCGGGACAGCAGCACTCCCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTC
                                                                                                                                                                                                               AGCCCGGGCCCTGAGCCTGGACCCTTAGCGGTGCCGGGCAGCAGCACTGCCGGCGCTTCGCCT
                                                                                                                                                                                                                                                   CGCCGGACGTCCGCTCCTACACTCTCAGCCTCCGCTGGAGACCCCCCAGCCCCACC
                                                                                                                                                                                                                                                                 CGCCGGACGTCCTCCTCCTACACTCTCAGCCTCCGCTGGAGAGACCCCCCAGCCCCACC
                                                                                                                                                                                                                                                                                                      ATTCAGCGCCAAGATACCCTCCAGATATGCCCTGCGTCCAAGCCCCAATATAGCCCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                          AACCCCGACTACACCAAGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                    781 AACCCCGACTACACCAAGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATCAGCAGCCATCCATTCCTCCAGCCTCCAGCCGGAGGACGAGGTGCTGCCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATCAGCAGCCATCCACCTCCAGCCTCCAGCCCGGAGGAGGAGGAGGAGGTGCTGCCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCATGTACTTCAAGCAGTCCCCACCGTCCACCCCCACCACGCGGCCTTCCCCCCGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCATGTACTTCAAGCAGTCCCCACCGTCCACCCCCCACCACCGCGGCCTTCCCCCCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gcagagacatratagaacaaaaaacaacacccaacacacacaaacaaacacaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        crecregaccesceargaagecescearcecaegresceseseseseseserreceserrerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCAGCCAGGCCGCCGCTTGAGAGCCACCGTACGGGCTGCCGCTGGCGCAAGAGGGCG
                                       CATCCCCCACCAGCCGCTCACCGCCTCCGGGAGCCGCTGGGGCTTGTACACCGCAGCCCTT
                                                                                                                                             GCTCTAAAGACGGAACCGCCACAGACTCAAAGCCCACTGCGGAAGAGGGCCAGCCCGGCA
                                                                                                                                                                                                AGCCCGGGCCCTGAGCCCTGGACCCTTAGCGGTGCCGGGCAGCACTGCCGGCGCTTCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTACGACCCGACGGCCGCTGCCGCTCAGCCTGCCGCTGGGAGCCGCAGCCGCCGCG
                                                                361
                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1321
                                                                                                                   421
                                                                                                                                            523
                                                                                                                                                                      481
                                                                                                                                                                                                583
                                                                                                                                                                                                                                                   643
                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                      703
                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                        763
                                                                                                                                                                                                                                                                                                                                                                                                            823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1423
              301
                                        403
                                                                                         463
                             8 &
                                                                                   8
                                                                                                           8
                                                                                                                                     કે
                                                                                                                                                                g
                                                                                                                                                                                             à
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           සි දි
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGTGCCGGCAGTGGCCGTGGAGGTGGGAACAGCGCGGGCATCCTCCCCCCTGGTCACAG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGTGCCGGCAGTGGCCGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCCTGGTCACAG 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCGGAGTCTCCTGCCTCCCGCCCCCCTCCAGCTCCTCCTCCTCCTCCGCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGCTCCGCACACACACTTCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCT
                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCGGTGCAGCGGCGCGCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCAAGCCAGGACGCCCGCGGAACCTCTCGGCTGTGCTCTCCCCATGAGTCGGGATCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGCTCCGCACACACACTTCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCCGGTGCAGCGCGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                   Labelle,Y., Zucman,J., Stenman,G., Kindblom,L.G., Knight,J.,
Turc-carel,C., Dockhorn-Dworniczak,B., Mandahl,N., Desmaze,C.
Peter,M., Aurias,A., Delattre,O. and Thomas,G.
Oncogenic conversion of a novel orphan nuclear receptor by
                                                                                                                                                                                                                                Direct Submission
Submitted (21-JUL-1995) Y. Labelle, INSTITUT CURIE, SECTION
RECHERCHE, 26 RUE DULM, 75231 PARIS CEDEX 05, FRANCE
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match 51.1%; Score 1939.4; DB 9; Length 2546; Best Local Similarity 99.9%; Pred. No. 1.7e-305; Matches 1940; Conservative 0; Mismatches 1; Indels 0;
                                                                                                                                                       chromosome translocation
Mun. Mol. Genet. 4 (12), 2219-2226 (1995)
9617762
8634690
X89894 GI:1165104
X89884.1 GI:1165104
nuclear receptor.
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                          2 (bases 1 to 2546)
Labelle, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   283
                                                   ORGANISM
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                  JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                         REFERENCE
                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                              CDS
                                                                                                                                                                                                                                                                          PEATURES
                                                                                                                                          TITLE
```

1002

942 900 1062

1182

원 ઠે g

8 8

6 8 6

셤

1302

1482

5858585858585858585	8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4 8 4
1381   GGCAGCCAGGCCTCCAGCCTCCCCTACGGCTCCCCTACAGGCCCGCTGCTG   140	AX587466  AX587466  LOCUES  AX587466  AX58746  AX

ړ

g ò 셤 ઠે g δ g ઠે 셤

ò 셤 õ

```
1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGCCCTTG---ATCAAAGTGGAGGAGGGCGGCGCCCAGCTACCATCACCATCACCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCCCGCGCCCAGCCCGGCCGGCGCCACCTCGGCTACGACCCGACGGCCGCTGCC 1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCGTGGAGGGCTACTCGAGCAACTACGAACTCCAAGCCTTCCTGCGTGTACCAAATGCAG 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 ACTTATGGCTCGGAATACACCACAGAAATCATGAACCCCGACTACACGCAAGCTGACCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATGCCCTGCGTGCAAGCCCAAGTATAGCCCTTCACCTCCGGGGTCCACTTACGCCAAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCTCGGTAGCACGGGGATCATGGCCACCCCACTACATCCCTGCCTCCAGTTCAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301 CACCATCACCATCACCATCATCACCACCACCAGCAACAGCAGCCGTCCATTCCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCCTCTGCGCCTGGCTGCATCGCTCCGGGACCGCTGGTCGACCCGCAGATGAAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTCCACCCCCACCACGCCGCCTTCCCCCCCGCAGGCGGGGGGGCGTTATGGGACGAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCCCCACGGTGCCCGGCGCGCTTCCCGCTTCCACTTCAAGCCCTCGCCGCCGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541 GTACCCCCATGGCCGCTGCTGCGCGCTTCCCGATCTTCTAGAGCCCTCACCGCCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                              730 ATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACATACAGCTCGGAATACACCACGGAGATCATGAACCCCGACTACACCAAGCTGACCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 cerreregecercegecerrigarcaagargaagaagagegegegegegegeraceaceae
                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                      Score 1485.6; DB 10; Length 1884;
Pred. No. 1.1e-231;
0; Mismatches 239; Indels 3; (
                                                                                           1. :1884
Jgene="Tec"
/note="similar to NOR-1, MINOR, CHN"
              1. .1884
/organism="Mus musculus"
                                     /mol_type="mRNA"
/db_xref="taxon:10090"
1. .1884
 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 87.2%;
Matches 1642; Conservative (
                                                                                 gene="Tec"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                 source
                                                                       gene
                                                                                              CDS
  FEATURES
                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus orphan nuclear receptor TEC long isoform (Tec) mRNA, complete cds.
AF191211.1 GI:6176563
              2046
                                                                    2106
                                                                                                                                       1380
                                                                                                                                                                  2166
                                                                                                                                                                                            1440
                                                                                                                                                                                                                       2226
                                                                                                                                                                                                                                                 1500
                                                                                                                                                                                                                                                                            2286
                                                                                                                                                                                                                                                                                                                                 2346
                                                                                                                                                                                                                                                                                                                                                                                       2406
                                                                                                                                                                                                                                                                                                                                                                                                                                            2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1501 GTCCTGCATCGACTTCAGTGCCTTCGAGGATTTGGGGGAGTGGCTCGACTCCATTAAAGAC 1560
                                                                                                                                                                                                                                                                                                                                                 CGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTC 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                              CTCAGACTITCCATCAGGTCAAACACTGCTGAAGATAAGTTTCTGTTCTGCAATGGACTT
                                                                                                                                                                                                                                                                           GTCCTGCATCGACTTCAGTGCCTTCGTGGATTTTGGGGGGGTGGCTCGACTCTATTAAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGTCCAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAG
AATGCCCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCCAGATAC
                                                                                                                          CTTCTGACGGCCTCCATTGACGTGTCCAGAAGCTGGGCAGAAAAGATCCCAGGATTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                            AACAAGATCACAAGCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Structure and expression of the mouse gene encoding the orphan nuclear receptor TEC DNA Cell Biol. 19 (2), 121-130 (2000)
                                                                                                            CTCCTGACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAAAATTCCGGGATTTTACT
                                                                                                                                                                                                                                    CTTAGACTTTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGACTTT
                                                                                                                                                                                                                                                                                                                                                                                         CTGAGCATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGGTCGAAGAGCTATGC
                                                      TGTCCCACTGACCAGGCTGCTGCAGGCACGGATGCTGAGCATGTGCAACAATTCTACAAC
                                                                                                                                                                                                                                                                                                                                TITICCTIAAAITIIGCAGAGCCIGAACCTIGAIAICCAAGCCTIAGCCIGCCIGICAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Maltais, A. and Labelle, Y. Maltais, A. and Labelle, Y. Direct Submission Stream Submitted (30-5EP-1999) Research Center, Pavillon St-Francois d'Assise, 10, rue de l'Espinay, Quebec, Qc GlL 3L5, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCCTGGACACCCTACCTTCTAA 2610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
Eukaryota: Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
1 (Dases 1 to 1884)
Maltais,A. and Labelle,Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20163713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10701778
                                                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2527
                           1201
                                                      1987
                                                                                                           2047
                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                      2347
                                                                                                                                                                                                                                                                                                                                                                                                                                            2407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2587
                                                                                                                                                                                                                      2167
                                                                                                                                                                                                                                                                           2227
                                                                                                                                                                                                                                                                                                                                2287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
AF191211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
```

g

ò

ò a ઠે g δ 셤

ద

ò

ద

õ

1681 ACCAAGATCACAAGCAGCTTAAAGGACCACCAGAGG 2467 GAGTCCTAGGTGCCTGGTAGAACTGAGG 1741 GAGTCTTCTGGCGCGCGCTGGTAGAACTGAGG 2527 CGCATCTTCTACCTGAAGCTGGAAGACTGGGTGCT 1801 CGCATCTTCTACCTGAAGCTGGAAGACTTGGTCT 1801 CGCATCTTCTACCTGAAGCTAGAGGACTTGGTACT 2587 TTCCTGGACACCTACCTTTCTAA 2610 1861 TTCCTGGACACCTACCTTTCTAA 2610 1861 TTCCTTGACACCTGCCTTTCTGA 1884		Submitted (16-NOV-2001) Wellcome Trust Cambridgeshire, CB10 15A, UK. E-mail e humquerygeanger.cuk Clone requests on Nov 17, 2001 this sequence version During sequence assembly data is compa Where differences are found these are together with a note of the overlappin variation annotation may not be found corresponding to the overlapping clone only a small overlap as described about his sequence was finished as follows regions were either double-stranded or chemistry or covered by high quality d 30; an attempt was made to resolve all as compressions and repeats; all region one plasmid subclone or more than one assembly was continued by restriction abbreviations are used to associate print the feature table with their source currector.	database can be found at http://www.sanger.ac.uk/Projects/C elewas generated from part of bacterial concomosome 9, constructed by the Sanger Group. Further information can be founttp://www.sanger.ac.uk/HGP/Chr9Pieter de Jong. Por further details sehttp://www.chori.org/bacpac/home.htm VECTOR: pBACG3.6 IMPORTANT: This sequence is not the en RP11-6013 It may be shorter because we	sections only once, except for a short The true right end of clone RP11-6013 sequence. The true left end of clone R this sequence. The true right end of c this sequence. The true right end of c this sequence. The true right end of c Location/Qualifiers 1146889 ce /organism="Homo sapiens" /mol_type="genomic DNA" /db_xref="taxon:9606"
8 6 6 6 6 6	RESULT 15 AL358937 LOCUS DEFINITION ACCESSION VERYORDS SOURCE ORGANISM REFERENCE ATTHORS TITLE	JOURNAL		FEATURES SOUTCE
0 4 0 0 0 0	9	9 9 9 0 9 0 9 0	9 0 9 0 9 0	9 0 9 9
	TITLE			GAACCTTGATATCCAAGCCTTAGCCTGCCTGTCAGCA 2346
	CCGCCCAGCAGGAGCTCGTCTGGCGAGGGCACGTGTGCCGTGTGCGGGGGCACACGCC		GATCTCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTC GATCTCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTC GATCTCCCCAAAGAAGATCAGACGTTACTTATTAGAATCAGCCTTTTTGGAGCTGTTTGTT	TTTCCTTAAATTIGCAGAGCCTGAACCTTGATAT
	1567 CCGCCC 161	1807 GAAGTT 1081 GAAGTT 1867 AGCCCA 1141 AGCCCA 1927 AATGCC 1201 AATGCC 1987 TGTCCC 1261 TGTCCC 2047 CTCCTG 1321 CTTCTG		2287 TTTTCC 1561 TTTTCT 2347 CTGAGC 1621 CTGAGT 2407 AACAAG
4 % 4 % 4 % 4	8 4 8 4 8 4 8	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	8 6 8 6 8 6	\$ 8 \$ 8 \$ •

```
rust Sanger Institute, Hinxton, il enquiries:
to: Clonerequest@sanger.ac.uk
ion replaced gi.16304857.
compared from overlapping clones.
are annotated as variations
pping clone name. Note that the und in the sequence submission lone, as we submit sequences with above.
ows unless otherwise noted: all of or sequenced with an alternate ty data (i.e., phred quality.>= all sequencing problems, such egions were covered by at least one Mi3 subclone; and the cone mi3 subclone; and the ion digest. The following e primary accession numbers given urce databases: Em:, EMBL; Sw:, EF; Information on the WORMPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entire insert of clone
we sequence overlapping
lort overlap.
113 is at 146889 in this
RPII-124M17 is at 93922 in
c RPII-30L7 is at 2000 in
                                            GGAAGATCTGCACCTGGGCCTCCAG 2526
                                                                                                                                         CTCCACCTTCCATCATGACAAGCTC 2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  legans/wormpep This sequence
clone contigs of human
ger Centre Chromosome 9 Mapping
ound at
3GAAGGGACAGGCTCTGGAGCCCTCG 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.1 constructed by the group of see
                                                                                                                                                                                                                                                                                                                                                                                                    NA linear PRI 16-NOV-2001
013 on chromosome 9, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ta; Vertebrata; Euteleostomi;
hini; Hominidae; Homo.
```

```
3440
                                                           26575
                                                                        3500
                                                                                                   3560
                                                                                                                                                                    26815
                                                                                                                             3620
                                                                                                                                          26755
                                                                                                                                                        3680
       ద
                õ
                            g
                                          ద
                                                                                                                                                   ⋧
                                                                                                                                                                 g
                                                                                                                                                                              8
                                                                                            25614
                                                                                                                     25674
                                                                                                                                                                                                                 26094
                                                                                                                                                                                                                                                                                                                                         26154
                                                                                                                                                                          25794
                                                                                                                                                                                                                                                          25974
                                                                                                                                                                                                                                                                                    26034
                                                                                                                                                                                                                                                                                                                                                                   26214
                                                                                                                                                                                                                                                                                                                                                                                             26274
                                                                                                                                                                                                                                                                                                                                                                                                                        26334
                                                                                                                                                                                                                                                                                                                                                                                                                                   2899
                                                                                                                                                                                                                                                                                                                           3019
                                                                  25554
                                                                                                         2539
                                                                                                                                   2599
                                                                                                                                                              2659
                                                                                                                                                                                         2719
                                                                                                                                                                                                                                             2839
                                                                                                                                                                                                                                                                                                                                                      3079
                                                                                                                                                                                                                                                                                                                                                                                 3139
                                                                                                                                                                                                                                                                                                                                                                                                          3199
                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                3319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3320 TATCCCTAGCAGAGGCTGTTCACCTTCCCTGTCGATCCCTTCTGAGGTATGGCCCATC 3379
                                                                            25615 TGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTACC
                                                                                                                                                                     25735 TACCTITCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCTCCTCTCTAGCACCTGCTTGC
                                                                                                                                                                                                                                                                     2480 TGGGTGCCCTGGTAGAACTGAGAAGATCTGCACCCTGGGCGTCCAGCGCATCTTCTACC
                                                                                                                                                                                                                                                   TTGGACAATGCTATCCCAGCAGGAAAAAAAAGGATAATATAAACTGTTTTAAAAACTCTTTC
                                                                                                                                                                                                                                                                                                        26395 TCTCCTTTATTCTATATGGAAATAAAAGGGGGGGGGTCATGTTAGCAAATGACACGTTAA
                                                    CAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCTATGCAACAAGATCACAA
                                                                                                                                                25675 TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCTGGACACCC
                                                                                                                                                             TACGCAGCAAAGGGATAGGTTTGGAAACCTATCATTTCCTGTCCTTTAAGAGGAAAA
                                                                                                                                                                                                                                            AGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTTTTATATTTTAGGCATTGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                          AAATGGTGAAAGATGGAGGATTACCTACAAATCAGACATGGCAAAACAATAATGGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTCCTTTATTCTATATGGAAATAAAAGGAGGCAGTCATGTTAGCAAATGACACGTTAA
                                        Gaps
                                        ö
                           Length 146889
                                      Indels
                         37.8%; Score 1435; DB 9; L. larity 100.0%; Pred. No. 1.8e-223; Conservative 0; Mismatches 0;
/clone="RP11-6013"
/clone lib="RPCI-11.1"
                               Best Local Similarity
Matches 1435; Conserv
                                                    2360
                                                                                                                                   2540
                                                                                                                                                                                       2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                               3260
                                                                                                                                                                                                                                            2780
                                                                                                                                                                                                                                                                                                 2900
                                                                                                                                                              2600
                                                                                                                                                                                                                                                         5915
                                                                                                                                                                                                                                                                                   25975
            ORIGIN
                                                              q
                                                                                         g
                                                                                                                                                                                   6 B 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                              ò
                                                                                                        ò
                                                                                                                셤
                                                                                                                                 8 & 8 &
                                                                                                                                                                                                                          8 8 8 8
                                                                                                                                                                                                                                                                               8 & 8
                                                                                                                                                                                                                                                                                                                      8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                             8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8 8
```

26694 26634 3499 3559 3619 3679 26455 TATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCGATCCCTTCTGAGGTATGGCCCATC 26695 ACCCCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAAC TGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTTTATAGATATAATTTAATTTTT GTTATTGGTTAAGGAGACAATTTTGGAGGAGCAAGCAAATCTTTTAAAAAATAGTATGAA AGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAAC TGGTCATACAGGGTAAGCACCACGGGACAATAAGGATTTTTATAGATATAATTTTAATTTTTT Search completed: March 21, 2005, 16:56:22 Job time : 15982 secs

THIS PAGE BLANK (USPTO)

Adg22833 Human sof Adg22833 Human sof Adb84081 Mutant NU Adb84081 Human NUR Adg56733 CDNA sequ Adh28985 Human NUR Adh28985 Human Chr Adc58210 Human Chr Adc58210 Human Chr Adf32074 Human CDN Adb84053 Rat WURR1 Adc25920 Human CDN Adb84053 Rat WURR1 Adc7273 Human CDN Adb84058 Murine NU Adb84058 Murine NU Adb84032 Murine NU Adb84032 Murine NU Adb84032 Murine NU Adb84038 Murine NU

Perfect score:

Sequence:

OM nucleic

Run on:

Scoring table:

Searched:

Minimum DB Maximum DB

Database

```
human, gene, 88; allergic disease, NOR-1; MINOR; eosinophil; atopic dermatitis, antiallergic; antinflammatory; dermatological.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Saito
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Yayoi Y, Sugita Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human NOR-1 (MINOR) cDNA sequence SegID 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag= a
/product= "NOR-1 protein"
                      ADQ22833
ADB84081
ADB84043
AAC15573
AAC15573
ADB84033
ADT32074
ADT32074
ADP23739
ADE25697
ADE25697
ADP84053
ADP84053
ADP84053
ADP84053
ADP84053
ADP84058
ADB84058
ADP85361
ADP863181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
730. .2610
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADI13007 standard; cDNA; 3794 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GENO-) GENOX RES INC.
(NIGE-) JAPAN GEN AGENCY NATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-JUN-2003; 2003WO-JP008199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-JUN-2002; 2002JP-00188490
Hashida R, Kagaya S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-083057/08.
P-PSDB; ADI13008.
WO2004003198-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-JAN-2004.
486
483.2
469.4
469.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADI13007;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AD113007
    CX SX LLLX SB SX BX BX BX BX BX LLLLLX SXXXXX BX BX BX BX CX BX CX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Adii3007 Human NOR
Abk51689 Human nuc
Abk83698 Human nuc
Adi25701 Human act
Abx62937 Human act
Abx62937 Human neu
Adf28866 Human nor
Abh84229 Human nor
Abk84229 Human CDN
Adi31602 Human PRO
Adi14062 Human PRO
Adi1602 Human NF-
Adi31602 Human nor
Adi31602 Human nor
Adi28873 Human cDN
Adi28873 Pig nor-1
Adf28873 Pig nor-1
Adf28873 Pig nor-1
Adf28871 Pig nor-1
Adp65710 Human nuc
Adr28873 Pig Human nuc
Adr28873 Pig nor-1
                                                                                                                                                                           (without alignments)
11814.571 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                        1 ataaatgacgtgccgagaga.....gtgtgagtactaggaaggat 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
                                                                                                                                                      March 21, 2005, 04:05:50 ; Search time 1901 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                             8780412
                         GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                 4390206 segs, 2959870667 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                             - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABX62937
AAT73334
AAT73334
ADE28866
ABL61892
ABK84229
ADL31602
ADI31602
ADI31602
ADAT16151
ADR86437
ADF288673
ADF288673
ADF28873
ADF28873
ADF28873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADL57170
ADE25701
                                                                                                                                                                                                                                                                                                                                 IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2003as:*
geneseqn2003bs:*
geneseqn2003cs:*
geneseqn2003ds:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              genesegn2004as:*genesegn2004bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            geneseqn1980s:*
geneseqn1990s:*
geneseqn2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genesegn2001bs:*genesegn2002as:*genesegn2002bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     geneseqn2001as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Geneseq 16Dec04:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                           US-10-608-863-1
3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3802
5828
33642
3762
4162
4977
4977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1000

9989

11.0999

12.00999

13.00999

14.00999

14.00999

15.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00999

16.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6:
7:
8:
9:
10:
11:
13:
```

This invention relates to a novel method for examining allergic diseases

Example 1; SEQ ID NO 1; 155pp; Japanese

2714 4400 4400 4400 5115 2055 1884

Score

Result No.

Examining allergic diseases e.g. atopic dermatitis by differential display based on gene expression of NOR-1 receptor protein, also applicable in screening compounds for treatment of allergic diseases

960 960 1140

ö 120 120 180 240 240 300 300 360 360 420 420 480 480 540 540 9 9 99 9 þe NOR 9 류 9 the that comprises comparing the expression levels of a gene encoding the MC-1 receptor protein between patients and healthy individuals. Specifically, the NOR-1 gene, also referred to as MINOR, is expressed in the specialist white blood cells known as eosinophils and is involved in mediating an allergic reaction. The present invention describes a differential display method that can identify the expression level of this gene in order to identify its usefulness in diagnosing allergic diseases such as atopic dermatitis. Furthermore, compositions can also be used to screen compounds for the treatment of allergic diseases. Accordingly, they exhibit various activities including antiallergic, antiinflammatory and dermacological. This polynucleotide sequence is the human NOR-1 cDNA sequence of the invention. CCGCCCCCCACCCTCCAGCTCCTCCTCCTCCTCCCCCCCATACACAGAGGCGCTCA TGGAGGTGGGAACAGCGGCGGCATCCTCCCCCTGGTCACAGCCCAAGGCCAGGACGCCCG CTCCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAAACCG 1 ATAAATGACGTGCCGAGAGAGCGAGCGAACGCGCAGCCGGGAGAGCGGAGTCTCCTGCCT 1 ATAAATGACGTGCCGAGAGAGCGAGCGAACGCCAGCCGGGAGAGCGGAGTCTCCTGCCT CCCGCCCCCACCCTCCAGCTCCTGCTCCTCCTCCGCTCCCCATACACACAGACGCGCTCA Trocretecedececteacacceterrecetrasaccerraseces TTCGCTCTCCCGCGCTCACACCCCTCTTGCCCTCAGCCCTTGCCGGTGCAGCGCGCG CCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGCCG CCGCAGCTGGACGCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGCCG TGGAGGTGGGAACAGCGGCGGCATCCTCCCCCTGGTCACAGCCCAAGCCAGGACGCCCG cedalacercretecerereceareagreesarecaseareceeereceeere CACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGTGA CTCCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAAGACGGAACCG CCACAGCACTCAAAGCCCCACTGCGGAAGAGGCCAGCCCGGCAAGCCCCGGGCCCTGAGCCT CCACAGCACTCAAAGCCCACTGCGGAAGAGGGCAGCCCGGCAAGCCCGGGCCCTGAGCCT GGACCCTTAGCGGTGCCGGGCAGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTCCT GGACCCTTAGCGGTGCCGGGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTCCT Gaps ; 0 DB 12; Length 3794; Sequence 3794 BP; 917 A; 1140 C; 910 G; 827 T; 0 U; 0 Other; CGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCCA Indels ; 0 ; Score 3794; I ; Pred. No. 0; 0; Mismatches 100.0%; Best Local Similarity 100. Matches 3794; Conservative 361 61 61 121 121 181 181 241 241 301 301 361 421 421 481 481 541 541 601 601 Query Match 8 8 g 셤 ò ò g à g ò g 8 8 8 8 6 8 6 8 & ò ò

CCTCCAGCCTCCAGCCCGGAGGAGGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAG CCTCTCGGCCTCACGCCTCCCCTACGCGTCCAGCCTGCTGGGCGAGAGTCCCAGCCTG CGTCGCCGCCCAGCAGGAGCTCGTCGTCGCGAGGCCACGTGTGCCCGTGTGCGGGGAC AACGCCGCCTGCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAG AGAACAGTGCAGAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGAC AAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATG GCGGCGCAGACATACAGCTCGGAATACACCACGGAGATCATGAACCCCCGACTACAAG CTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCCACGCCACGTCCCTGCCCAGC ATCAGTACCTTCGTGGAGGGCTACTCGAGCAACTACGAACTCCAAGCCTTCCTGCGTGTAC CAAATGCAGCGCCCTTGATCAAAGTGGAGGAGGGGCGGCCCCAGCTACCATCACCAT CCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAG AAGGCGGTCCCCACGAGGCCGCGCGCGCTTCCCGCTCTTCCAGCTTCAAGCCCTCTGCCG CCGCATCCCCCCCGCCCCAGCCCGGCCGGCGGCCACCACCTCGGCTACGACCCGACGGCC GCTGCCGCGCTCAGCCTGCCGCTGGAGCCGCAGCCGCCGCGGGGCAGCCAGGCCGCG CCGTCGCCCCCAGCAGGAGCTCGTCGTCTGGCGAGGCACGTGTGCCGTGTGCGGGAC GTAAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGGAGGAGGAGGTCGTCTGCCTTCCAAA GTAAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGGAGGAGGTCGTCTGCCTTCCAAA CCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGC CACCACCACCACCACCACCACCACCATCACCAGCAGCAGCATCAGCATCCATT GAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGGTTGCTGGACCCGGTTG CCGCATCCCCCCCCCCCAGCCCGGCCGGCCACCACCTCGGCTACGACCCGACGGCC GCTGCCGCGCTCAGCCTGCCGCTGGCAGCCGCAGCCGCGCGGCAGCCAGGCCGCGCGC CTTGAGAGCCACCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCCCGCTGGCCTTCCCG crrcadadecaccecaracecerecededeceaagaececeeceeceeceeceeceeceeceeceecee CCTCTCGGCCTCACGCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCAGCCTG CTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGC 1561 1801 1861 1021 1081 1141 1201 1261 1321 1381 1381 1441 1441 1621 1681 1681 1741 1741 1801 1861 841 1021 1081 1141 1201 1261 1321 1501 1561 1621 901 196 1501 781 841 901 961 g 엄 g a D 원 장 원 ò 셤 δ 요 8 qq δ 8 8 g ð g à g ò 셤 ò 셤 ð g δ ద ò 셤 ò ò ò ∂ 8 720 720 780 780 840 CCTACACTCTCAGCCTCCGCTGGAGACCCCCAGCCCCACCATTCAGCGCGCGAAGATAC ccracacrcragccrcagaragaaccccaacccaacarrcaacacaaaarac CCTCCAGATATGCCCTGCGTCCAAGCCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTAT cerecagarargecerecerecaageceaararagecerrecerecaggriceagriar GCGGCGCAGACATACAGCTCGGAATACACCACGGAGATCATGAACCCCGACTACAAG 

1380 1380 1440 1560

1500

1620

1680

1800

661 661 721 721 781

> 유 ò g

	3181 CAAACATATGCTTTGCTTCCTTAAACAGGCAATTTTTTAAAGGCCTCTTTA 3 3241 CTAAGTCTTGTTTATTAATACTCTCTTATTCTATAGGCAATTTTTTAAAGGGCAGTCTTTA 3 3241 CTAAGTCTTGTTTATTAATACTCTCTTTATTCTATAGGAATAAAAAGGAGCAGTCATG 3301 TTAGCAAATGACACGTTAATACCCTTAGCAAGGAGCAGTCATG 3301 TTAGCAAATGACACGTTAATATCCCTAGCAGAGCTGGTTCACCTTCCCTGTCGATCCC 3361 TTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTTCACCTTCCCTGTCGATCCC 3361 TTCTGAGGTATGGCCCATCCAAGAACTTTAGGCCATTCTTGATGGAACCAGATCCCTGCC 3361 TTCTGAGGTATGGCCCATCCAAGAACTTTAGGCCCATTCTTGATGGAACCAGATCCCTGCC 3161	3361 3421 3481 3481 3541	3601 CATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTTTA 3660	SULT 2 K21689 ABK51689 standard; DNA; 380 ABK51689; 30-JUL-2002 (first entry) Human nuclear receptor NOR1 Human; nuclear receptor; NU corticotropin releasing hor chronic inflammatory joint sarcoid arthritis; ulcerati Homo sapiens.
6 8 6 8 6 8 6	8 8 8 8 8 8	8 6 8 6 8 6 8	6 6 6 6 6 6 6 6	R R K K K K K K K K K K K K K K K K K K
-				
1921 ATGATGAATGCCCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCC 1980  1921 ATGATGAATGCCCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCC 1980  1921 AGGATGATCCCACTGACCAGGCTGCAGGACACACCCAGAGATCTTGATTATTCC 1980  1981 AGGATACTGTCCCACTGACCAGGTGCTGAGGACACACACA		AAAGACTTTTCCTTAAATTTGCAGAGCCTGAACCTTGATATCCAAGCCTTAAGCTGCTG 234 TCAGCACTGTTTCCTTAAATTTGCAGAGCCTGAACCTTGATATCCAAGCCTTAGCTGCTG 234 TCAGCACTGAGCATGATCAGAAAGAACATGGGTTAAAAGAACCAAAGAGGGTCGAAGG 240 TCAGCACTGAGCATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGCTCGAAGA 240 CTATGCAACAAGATCACAAGAGTTTAAAAGACCACCAGAGTAGGAACAGGCTCTGGAG 246 CTATGCAACAAGATCACAAGAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAG 246 CTATGCAACAAGATCACAAGAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAG 246 CCACCGAGTCCAAAGATCTGGAACCTGGAACTGAAGAGAATCTGCAACCTGGGGC	251 CTCCACCGAGTCCTGGGTGCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGC 2520 2521 CTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGCTCCACCTTCCATCGTTGCC 2580 2521 CTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGCTCCACCTTCCATCGTTGAC 2580 2521 CTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGCTCCCACCTTCCATTGAC 2580 2581 AAGCTCTTCCTGGACACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCTCC 2640 2581 AAGCTCTTCCTGGACACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCTCC 2640 2641 TCTCCTAGCACCTGCTTGCTACGCAAGGGATAGGTTTGGAAACCTATCTTG 2700 2641 TCTCCTAGCACCTGCTTGCTACGCAAAGGGATAGGTTTGGAAACCTATCTTG 2700 2641 TCTCCTAGCACCTGCTTGCTACGCAAAGGGATAGGTTTGGAAACCTATCTTG 2700 2641 TCTCCTAGCACCTGCTTGCTACGCAAAGGGATAGGTTTGGAAACCTATCTTTTTTTT	2701 rccrtachadagcadadacciccrdradadaccadadacrtrcrtrrrrrrrcrege 2760 2761 rccrtachacadaccadadaccadadaccadadactrtrcrtrrrrrrrr 2820 2761 rctrtrccttachacctadagcadadacttgcagagatattgrgrgrgrgrgrtrt 2820 2821 atartraggcartggggartgggggggggggttatagttcartaggggrtrrrradag 2880 2821 atartraggcartgggggartgggggggggttatagttcartaggggrtrrradag 2880 2821 atartraggcartggggartggggggggggttataggttcartaggggttrradag 2880 2821 atartraggcartggggaggggggggggttataggttcartaggggttrratag 2940 2831 aattggradadaggartggggagggggggttatccaggaggadadadagggtatata 2940 2841 attggradadaggacttrragagatcattcagagadadadaggatatata 2940 2941 actgrtrtadadactcrtrctggggaatccagtggtggtggttgtttgtatttadadacaaga 3000 2941 actgrtrtadadactcrtrctggggaatccaattataggttgcrtrgtatttadadacaaga 3000 2941 actgrtrtadadactcrtrctggggaatccaattataggttgcrtrgtatttadadacaaga 3000

CGCGGAACCTCTCGGCTGTGCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCG 420

361

421 479 481

419

480 538 540 598 9 658 9 718 720 778 780 838 840 898 900 958 960

GACTCCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAAC

CGCCACAGCACTCAAAGCCCACTGCGGAAGAGGGCAGCCCGGCAAGCCCGGGCCTGAGC

CTGGACCCTTAGCGGTGCCGGCCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTC

541 599

539

Accerecagarargecerecereceageceaararagecerreceerecagerrecagrr

721

719

781

839 841 899

119

crectacactercaecerececregagagacececaececeareareagececeaagar

CTCCTACACTCTCAGCCTCCGCTGGAGAGACCCCCAGCCCCACCATTCAGCGCGCAAGAT

629

661

601

901

959

GCATCAGTACCTTCGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGT

```
g
                                                                                                                              g
                                                                                                                                                                    8
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                            ò
                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                      an inflammatory immune disease. The method of the invention comprises reducing expression of a NURR subfamily nucleic acid sequence or corticotropin releasing hormone (CRH) receptor nucleic acid sequence, inhibiting transcriptional activity of a NURR superfamily member/CRH receptor amino acid sequence, or reducing the level of NURR superfamily member/CRH receptor sequence. The method is useful for treating an organism for an inflammatory immune diseases such as chronic inflammatory joint disease, preferably arthritis, selected from rheumatorid arthritis, psoriatic arthritis and sarcoid arthritis, ulcerative colitis and inframine in also useful for screening a compound that interferes with interaction of a NURR subfamily polypeptide with a ligand, or identifying a compound for the treatment of an inflammatory immune response. The agonist of the invention is useful for inhibiting
                                                                                                                                                                                                                                                                                                                                                           present invention relates to a new method of treating an organism for
                                                                                                                                                                                                                                                    Treating inflammatory immune disease such as arthritis, comprises suppressing expression level of NURR subfamily of nuclear transcription factors, or corticotropin releasing hormone receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transcriptional activity of nuclear receptor polypeptide and the antagonist is useful for decreasing the expression of a NURR subfamily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   member. The present nucleic acid sequence represents the human nuclear receptor NOR1 gene of the invention. Note: The present sequence is not shown in the specification but was obtained from Genbank (1651190)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3802 BP; 919 A; 1141 C; 912 G; 830 T; 0 U; 0 Other;
                                                                                                                                                                                       Bresihan
                                                                                                                                                                                       ŏ
                                                                                                                                                                                     Fitzgerald
                                                                                                                                                     BAYLOR COLLEGE MEDICINE
                                                                                                                                                                                                                                                                                                                         Claim 10; Page; 123pp; English
                                                                                  11-MAY-2001; 2001WO-US015311
                                                                                                                  12-MAY-2000; 2000US-0203645P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 99.4%;
Matches 3779; Conservative
                                                                                                                                                                                     ō
W
                                                                                                                                                                                       Conneely
                                                                                                                                                                                                                     WPI; 2002-075311/10
                WO200187923-A1
                                                 22-NOV-2001
                                                                                                                                                                                       ы
                                                                                                                                                     (BAYU)
                                                                                                                                                                                       Murphy
```

ACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCGGCGA CGCCGCATCCCCCCGCGCCCCAGCCCGGCCGGCGGCCACCACCACCTCGGCTACGACCCGACGG TGAAGGCGGTCCCCACGGTGGCCGCGCGCTTTCCCGCTCTTCCACTTCAAGCCCTCGC cederracedecercadecracederracaadecedecedecedecededeceadecedecede AGTCCCCACCGTCCACCCCCCACCACGCCGGCCTTCCCCCCCGCAGGCGGGGGCGTTATGGG CGCCGCATCCCCCCGCCCCAGCCCGGCCGGCCACCACCTCGGCTACGACCGG CCGCTGCCGCCCTCAGCCTGCCGCTGGGAAGCCGCAGCCGCCGCGGGGCAGCCAAGGCCGCCG CGCTTGAGAGCCACCGGTACGGGCTGCCGCTGGCCAAGAGGCGGCCCCCCGCTGGCCTTCC ATCACCACCACCACCACCACCACCACCATCACCAGCAGCAGCATCAGCCATCCA TTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGC 1019 1021 1079 1139 1199 1201 1319 1321 1381 1439 1259 1261 961 1081 1379 g ò 임 δ 엄 8 셤 ð 셤 δ g ò 엄 ò 120 120 180 238 240 298 300 358 418 9 9 CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCCTGGTCACAGCCCAAGCCAAGACGCC CGCGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCG CCCGCCCCCCACCCTCCAGCTCCTCCTCCTCCGCTCCCCATACACAGACGCGCTCA CCCGCCCCCCACCCTCCAGCTCCTGCTCCTCCGCTCCCCCATACACAGACGCGCTCA ACTTCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG ACTTGGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGGGCGCGG CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC ATAAATGACGTGCCGAGAGAGCGAGCGAACGCGCAGCCGGGAGAGCGGAGTCTCCTGCCT Gaps 8 Score 3722; DB 6; Length 3802; Pred. No. 0; Indels 15; 0; Mismatches

121

ò

g

ò

61 61 121

ò

g

g

181 239 241 299 301 359

g &

g

8

ò

1078

1018

1138

1198

2579 ACAAGCTCTTCCTGGACACCCTACCTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCT 2638 2581 ACAAGCTCTTCCTGGACACCCTACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCT 2640 2639 CCTCCCTAGCACCTGCTTGCTACGCAAGAGGATAGGTTTGGAAACCTATCATTTCC 2698 [	287 293 294 299	941 TAACTGTTTTTAAAACTCTTTCTGGGGAATCCAATTAGTTGCTTTTTTAAAAAAAA	3119 TCCTTCTTCTTTTAACAAATGGTGAAAGATGGGGGATTACCTACAAATCAGACAT 3178 3119 TCCTTCTTCTTTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCAGACAT 3178 3121 TCCTTCTTCTTTTAACAAATGGTGAAAAGAGGAGGATTACCTACAAATCAGACAT 3180 3179 GGCAAAACAATAATTTTAACAAATCCTTCCATAAACAAGTGCAATTTTTTAAAAGTGCTGTT 3238 1179 GGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAAGTGCTGTT 3238 3181 GGCAAAACAAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAAGTGCTGTT 3240	39 TACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAAGGAGGCAGTCA 329	9 CCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTG 341  [	3479 ITTIGGTTGTTCTATCACCCACCAGAGTTCCCTAACTTGCTTCAGTTATAGTAAC 3538	3601 AACATGCAAATCAGCAGAACTGGTCATACAGGGTAAGCACCAGGACAATAAGGATTTT 3660 3659 TATAGATATAATTTTATTTATATTGGTTAAGGAGA-CAATTTTGGAGAGCAAGGA 3715
8 6 8 6 8 6 8	8 8 6 8 6	4 6 6 6	3 6 6 6	6 6 6 6	ò a ò a	8 8 8 8	qa ko
1499 CGCCTCTCGGCCTCACGCCTCCCTACCGCGTCCAGCCTGGGCGAGAGTCCCAGCC 1558    1501   CGCCTCTCGGCCTCACGCCTCCCTACCGCGTCCAGCCTGGGCGAGAGTCCCAGCC 1550   1501   CGCCTCGGCCCTCACCGCCTCCTCGCGCGCTGCGGGGAGAGTCCCAGCC 1560   1559   TGCCGTCGCCCCAGCAGGAGCTCGTCGTCTGGCGAGGGCACGTGTGCGGGG 1618   1611	AGAGAACAGTGCAGAAAATGCAAATATGTTTGCCTGGCAAATAAAACTGCCCAGTAG 174 ACAAGAGACGCGCAAACCGATGTCAGTACTGTCGATTCGGAAGTGTCTCACTGTGGAA 179 ACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCACTGTTGGAA 180 TGGTAAAAGAACTTGTCGTACAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAA 180 TGGTAAAAAGAAGTTGTCCGTACAGATGTCTGAAAGGGAGGAGAGGTCGTCTGCCTTCCA 185 [	1853 AACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCCCCAATCT 1918 1861 AACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCTCTCCCCCCTCTCCTCCAATCT 1920 1919 GCATGATGAATGCCCTTGTCCGAGCTTTAACAGACTCCACACCCAGAGATCTTGATTATT 1978 1921 GCATGATGATGCTCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATT 1980 1979 CCAGATACTGTCCCACTGACCAGGCTTGAAGAGCAATGCTGAAAGAAT 2038	CCAGATACTGTCCCACCAGGCTGCTGCTGCTGTGTGTGTG	2159 TGTTTGCTCGCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGC 2160 2159 TGTTTGTCCTCAGACTTTCCATCAGGTCAAACAGACAAAGATTGGTTCTGCA 2218 2161 TGTTGTCCTCAGACTTTCCATCAGGTCAAACATGGTTTGGGTTCTGCA 2220 2219 ATGACTTGTCCTCCAGACTTCAGGGCTTCGTGGATTTGGGATGGCTCGACTCA 2278 2221 ATGAACTTGTCCTGCATCACTTCAGGCCTTCGTGGATTTGGGATGGCTCGACTCA 2280 2221 ATGGACTTGTCCTGCATTCAGTGCCTTCGTGGATTTGGGATGGCTCGACTCTA 2280	2279 TTAAAGACTTTTCCTTAAATTTGCAGAGCCTGAACCTTGATATCCAAGCCTTAGCCTGCC 2338	2399 AGCTATGCAACAAGATCACAAGCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGG 2458  2401 AGCTATGCAACAAGATCACAAGCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGG 2460  2459 AGCCCACCGAGTCCAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAACATCTGCACCCTGG 2518  2461 AACCCAACGAGTCCAAGGTCTGGTGCCCTGGTAGAACTGAGGAAATCTGCACCTGG 2520  2519 GCCTCCAAGGTCCAAGGTCTTGAAGACTTGAAAGTTGAAGAATCTGCAACTTTG 2578	

```
The invention relates to detecting (MI) granulocyte (GC) activation (GCA), by detecting the level of expression of gene(s) (Gs) identified by DNA chip analysis as given in the specification, and comparing the expression level to an expression level in an unactivated GC, where differential expression of Gs is indicative of GCA. Also included are modulating (M2) GA by contacting GC with an agent that alters the expression of at least one gene in Gs; (2) screening (M3) for an agent capable of modulating GCA or an inflammation (especially chronic) in a tissue, an allergic response in a subject, exposure of a subject to a pathogen or sterile inflammatory disease using the gene expression contacting (M4) an inflammation (especially chronic) in a tissue, an allergic response in a subject, exposure of a subject to a pathogen or sterile inflammatory disease, by detecting the level of expression in a sample of the tissue of gene (S) from Gs, where the level of expression of the gene is indicative of inflammation; (4) treating (M5) an inflammation (especially chronic) or in a tissue, an allergic response in a subject to a pathogen or sterile inflammatory disease, by contacting a tissue having inflammation with an expression of gene(s) from Gs in the tissue. M1 is useful for detecting GCA; M2 is useful for modulating GA; M3 is useful
Detecting granulocyte activation by detecting differential expression of genes associated with granulocyte activation, which serves as diagnostic markers that is useful for monitoring disease states and drug toxicity.
                                                              Human; ss; granulocytic cell; DNA chip; bacterial infection; viral infection; parasitic infection; protozoal infection; fungal infection; strile inflammatory disease; psoriasis; rheumatoid arthritis; alomerulonephritis; asthma; thromboals; cardiac reperfusion injury; renal reperfusion injury; ARDS; andlt respiratory distress syndrome; inflammatory bowel disease; crohn's disease; ulcerative colitis; periodontal disease; granulocyte activation; chronic inflammation; allergy.
                                                                                                                                                                                                                                                                                                                                                                                                        Human cDNA differentially expressed in granulocytic cells #269.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vockley J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Yamaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; SEQ ID NO 269; 114pp; English.
                                                                                                                                                                    3781 GAGTGTGAGTACTAGGAAGGAT 3802
                                                                                                                                           GAGTGTGAGTACTAGGAAGGAT 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beazer-Barclay Y, Weissman SM,
                                                                                                                                                                                                                                                                                    ABK83698 standard; cDNA; 3802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-OCT-2001; 2001WO-US030821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-OCT-2000; 2000US-0237189P
                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GENE-) GENE LOGIC INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2002-435328/46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200228999-A2
                                                                                                                                                                                                                                                                                                                                                                 14-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11-APR-2002
                      3661
                                                              3716
                                                                                                                                           3773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ношо
                                                                                                                                                                                                                                                               유
                                                              ò
                                                                                                   유
                                                                                                                                           à
                                                                                                                                                                              셤
```

```
inflammation in a tissue, M4 is useful for detecting an inflammation (especially chronic) in a tissue, an alergic response in a subject capones in a subject of expecially chronic) in a tissue, an alergic response in a subject caposure of a subject to a pathogen or sterile inflammatory disease (e.g. psoriasis, rheumatoid arthritis, glomerulonephritis, asthma, thrombosis, cardiac reperfusion injury, ARDS, adult respiratory distress syndrome, inflammatory bowel disease, Crohn's disease, ulcerative colitis, periodontal disease, also bacterial infection, protocozal infection, circletion, protocozal infection, conditions. The present sequence represents a gene differentially expressed in granulocytes. Note: The sequence data for this patent did conditions art of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTT 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCTACACTCTCAGCCTCCGCTGGAGAGACCCCCCAGCCCCACCATTCAGCGCGCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGACCCTTAGCGGTGCCGGGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGACCCTTAGCGGTGCCGGGCAGCACCACCACGGGGCTTCGCCTTCGCCGGACGTCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTTCGCCTCTCCCGCGCTCACACCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCCTGGTCACAGCCCAAGCCAGGACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cecegaaccrcrceecrerecrcrcccardaerceegarcecaecarcecaecaecae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACTCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCTACACTCTCAGCCTCCGCTGGAGACCCCCAGCCCCACCATTCAGCGCGCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACCCGCTCCCTCACTCGCACACACACACACGCGCGCACACACGCTCCG--CACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTTCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCCGCAGCTGGACGCCCCTCCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCTGGTCACAGCCCAAGCCAGGACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCGGAACCTCTCGGCTGTCTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCACCGCCTCCGGGAGCCGCTTGGTACACCGCAGCCCTTCCGGGGACAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 creacecercessascescresserreracacescerrecesserrer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACTCCCCCCCAGTGCAGATTTCGGGACAGCTCTTAGAAACTCGCTCTAAAGACGGAAC
                                                                                                                                                                                                                                                                                                                                                                                   1 ATAMATGACGTGCCGAGAGAGAGCGAACGCGCAGCCGGAGAGAGCGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                   1 ATABATGACGTCCCGAGAGAGAGCGAACGCCCAGCCGGAGAGAGCGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCACAGCACTCAAAGCCCCACTGCGGAAGAGGGCCAGCCCGGCAAGCCCGGGCCCTGAGC
                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                 8;
                                                                                                                                                                                                                                                                                                                DB 6; Length 3802;
                                                                                                                                                                                                                                                                              Sequence 3802 BP; 919 A; 1141 C; 912 G; 830 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                15;
                                                                                                                                                                                                                                                                                                              ; Score 3722; DB
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                  98.18;
                                                                                                                                                                                                                                                                                                                                99.48;
                                                                                                                                                                                                                                                                                                                                Sest Local Similarity 99.4
Aatches 3779; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                  Query Match
        ð
                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

1919   ACCAMAGACCANTINGAACATTCAGCCCTCTCCACCTTCTCCCCTCTCTCCCCTCTT   1181     1911   GATTCATAGAGCCCATTTACAACAGAACCTTCTCAGCCCTCTCCCCCTCTCTCCCCCTCTT   1200     1912   GATTCATAGAGCCCCTTTTCCCACCTTCTCCACCTTCTCCCCCTCTTCTCTCTT   1200     1913   GATTCATAGCCCTTGCCCACCTTTCTCCACCACCTTCTCCCCCTTTCTTT	2881 GAAATTGCTAACAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAAAGGATAATA 2940 2939 TAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAA 2998
6 H 6 H 6 H 6 H 6 H 6 H 6 H 6 H 6 H 6 H	g &
### PROCEECT CONTRICTE CON	1799 TGGTAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGAGAGAGA

```
3118
                                                                                                                                           3120
                                                                                                                                                                       3178
                                                                                                                                                                                                        3180
                                                                                                                                                                                                                                     3238
                                                                                                                                                                                                                                                                    3240
                                                                                                                                                                                                                                                                                                   3298
                                                                                                                                                                                                                                                                                                                                 3300
                                                                                                                                                                                                                                                                                                                                                                3358
                                                                                                                                                                                                                                                                                                                                                                                                                                                          3420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA---TCTTTTTAAAAATTAGTATGAATGTGAATACTAGAAAAGATTTAAAAAATAGTAT 3772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3721 AATCTTCTTTTAAAAAATAGTATGAATGTGAATACTAGAAAAGATTTAAGAAATGAATAGT 3780
                                                                                                                                                                                                                                                                                                                                                                                                                                                2941 TAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAA
                                                               GAACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAAT
                                                                                                                               ATGCTTCCTGTATCAAAGGTACGTATGTGGGCAAACAAGGCAGAAACTTCCTTTTAATT
                                                                                                                                                                                                                                                                                                                          3241 TACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAAGGAGGCAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCTGACTGTCCCAGCTATCCTGAAAGTGGATCAGATTATAAAACTGGATTACATGTAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTTGGTTGTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCTTCAGTTATAGTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTTGGTTGTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCTTCAGTTATAGTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAACTTCCTTTTAATT
                                                                                                                                                                          TCCTTCTTCCTTTATTTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCAGACAT
                                                                                                                                                                                            TCCTTCTTCTTTTTTTATCAAATGGTGAAAGATGGAGGATTACCTACAAATCAGACAT
                                                                                                                                                                                                                                       GGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGCTGTCT
                                                                                                                                                                                                                                                          GCCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGCTGTCT
                                                                                                                                                                                                                                                                                                   TACTAAGTCTTGTTTATTAACTCTCTTTATTCTATATGGAAATAAAAAGGAGGCAGTCA
                                                                                                                                                                                                                                                                                                                                                                TGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCGATC
                                                                                                                                                                                                                                                                                                                                                                                              301 TGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                             CCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAAACTGGATTACATGTAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGGCACCAGGGACAATAAGGATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATAGATATATTTTAATTTTTGTTA--TTGGTTAAGGAGA-CAATTTTGGAGAGCAAGCA
3781 GAGTGTGAGTACTAGGAAGGAT 3802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGTGTGAGTACTAGGAAGGAT 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3659
                                                                             3001
                                                                                                            3059
                                                                                                                                           3061
                                                                                                                                                                                                                                     3179
                                                                                                                                                                                                                                                                    3181
                                                                                                                                                                                                                                                                                                   3239
                                                                                                                                                                                                                                                                                                                                                                3299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3601
                                               2999
                                                                                                                                                                          3119
                                                                                                                                                                                                        3121
                                                                                                                                                                                                                                                                                                                                                                                                                              3359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                               ઠે
                                                                           셤
                                                                                                          ઠ
                                                                                                                                   g
                                                                                                                                                                        ð
                                                                                                                                                                                               g
                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
that modulate or inhibit e.g. neurogenesis, cell differentiation, cell proliferation, haematopoiesis, wound healing and angiogenesis, in gene therapy, in generation of antibodies that bind immunospecifically to NOVX substances for use in therapeutic or diagnostic methods. The nucleic
                                                                                                                                                                                                                                                         acids are further used as hybridisation probes, in chromosome mapping, tissue typing, preventive medicine, and pharmacogenomics. The NOVX polypeptides of the invention show homology to certain known human
                                                                                                                                                                                                                                                                 ds; gene; human; antidiabetic; anorectic; cardiant; hypotensive; antiarteriosclerotic; anorectic; virucide; antibacterial; fungicide; protozoacide; nootropic; neuroprotective; antiparkinsonian;
                                                   ADL57170 standard; DNA; 3802 BP
                                                                                                                                                                                                                   Human NOV9i gene SEQ ID NO:115.
                                                                                                                                                                (first entry)
                                                                                                                                                             03-JUN-2004
                                                                                                         ADL57170;
                      RESULT 4
```

```
The invention relates to a novel isolated polypeptide (NOVX) comprising a mature form of any of the 37 amino acid sequences fully defined in the specification. A polypeptide of the invention has antidiabetic, anorectic, cardiant, hypotensive, antiarteriosclerotic, anorectic, virucide, antibacterial, fungicide, protozoacide, nootropic, continital manatory, dermatological, antiasthmatic, and antilanamatory, dermatological, antiasthmatic, and antilanamatory, dermatological, antiasthmatic, and antilanamatory, dermatological, antiasthmatic, and antilapemic activity. A polymucleotide of the invention may have a use in gene therapy. The polypeptides, nucleic acid molecules and antibodies are useful in the manufacture of a medicament for treating a syndrome associated with a human disease, preferably a NOVA-associated disorder. The nucleic acid molecules, polypeptides and antibodies are useful for treating, preventing or diagnosing diseases such as metabolic disorders, clabetes, obesity, infectious diseases (viral, bacterial, fungal, helminthic, and protozoal), anorexia, cancer, cardiovascular diseases (osteoarthritis), haematopoietic disorders, inflammatory skin disorders, asthma, and various dyslipiademias. The nucleic acids and polypeptides asthma, and various dyslipiademias. The nucleic acids and polypeptides and antipole of acids and polypeptides and antipole of acids and polypeptides and antipole of acids and polypeptides.
                     dermatological; antiasthmatic; antilipaemic; gene therapy; fibroblast growth factor receptor 4; FGR84; complement factor I precursor; matrix metalloproteinase-15 precursor; MDC3; T-lymphocyte surface antigen Ly-9 precursor; fibroblast growth factor-21; FGF-21; alpha-2 marcoglobulin-like polypeptide variant; antileukoproteinase 1 precursor; Lymphocyteinase 2 precursor; Lymphocyteinase 2 precursor; Lymphocyteinase 3 prec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated NOVX polypeptides and polynucleotides, useful for preventing, diagnosing or treating NOVX-associated disorders, e.g. osteoarthritis, obesity, atherosclerosis, cancer, Parkinson's disease, sethma, or infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rieger DK;
anticonvulsant; osteopathic; antiarthritic; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Padigaru M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 17; SEQ ID NO 115; 214pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ė,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ort
                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
732. .2612
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2002US-0409544P.

2002US-0410320P.

2002US-0411060P.

2002US-0412766P.

2002US-0412875P.

2002US-041345P.

2002US-0414832P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Guo X, Anderson DW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2003WO-US028141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2004-315567/29.
P-PSDB; ADL57171.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2004022723-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-SEP-2002;
23-SEP-2002;
24-SEP-2002;
25-SEP-2002;
30-SEP-2002;
                                                                                                                                                                                                                                                                                                    sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-SEP-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-SEP-2002;
12-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-MAR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ΣÌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zhong
                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                            Key
```

a

1018

889999999988888

셤

8

셤

ઠે

g

ò

ద

ઠે

셤

ò

qq

ઠે

원 장 品 公 品 谷 品

8 & 8

õ

셤

8

õ

ઠે

1081 TTCCTCCAGCCTCCAGCCGGAGGACGAGGTGCTGCCCAGCTCCATGTACTTCAAGC 1141 AGTCCCCACCGTCCACCCCACCACGCCGGCCTTCCCCCCGCAGGCGGGGGGGCGTTATGGG TGAAGGCGGTCCCCACGGTGGCGCGCGCGCTTCCGCTTCCACTTCAAGCCCTCGC AGCTGACCATGGACCTTGGCAGCACCTGAGATCACGGCTACAGCCACCACGTCCCTGCCCA GCATCAGTACCTTCGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGT 1021 ATCACCACCACCACCACCACCACCACCATCAGCAGCAGCATCAGCAGCATCA 1201 ACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCGGCGA 1321 CGCCGCATCCCCCCGCGCCCCAGCCCGCCGCGCGCCACCTCGGCTACGACGG CGCTTGAGAGCCACCCGTACGGGCTGCCGCTGGCCAAAAGGGCGGCCCCGCTGGCCTTCC CGCCTCTCGGCCTCCACGCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAAGTCCCAGCC TGCCGTCGCCGCCCAGCAGGAGCTCGTCTGGCGAGGGCACGTGTGCCGTGTGCGGGG 1621 ACAACGCCCCTGCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCA AGAGAACAGTGCAGAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAG ACAAGAGGCGTCGAAACCGGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGTAGAA TGGTAAAAAGAAGTTGTCCGTACAGATAGTCTGAAAAGGAGGAGGAGGAGGAGGAGGAGCTCTGCCTTTCCA AACCAAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTTCTCCTCCAAATCT 901 GCATCAGTACCTTCGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGT ATCACCACCACCACCACCACCACCACCATCACCAGCAGCAGCATCAGCAGCATCCCA ACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGGACCCGGCGA TGAAGGCGGTCCCCACGGTGGCCGGCGCGCTTCCCGCTCTTCCACTTCAAGCCCTCGC CGCCGCATCCCCCCGCGCCCCAGCCCGGCCGGCCACCACCTCGGCTACGACCCCGACGG 1501 CGCCTCTCGGCCTCACGCCCTCCCCTACCGCGTCCAGCCTGCTGCGCGAGAGTCCCAGCC 1561 TGCCGTCGCCCCCAGCAGCAGCTCGTCTGGCGAGGGCACGTGTGCCGTGTGCGGGG **ATGCGGCGCAGACATACAGCTCGGAATACACCACGGAGATCATGAACCCCGGACTACACCA** AGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCA TTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGC 1441 CGCTTGAGGGCCACCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCCCGGCTGGCCTTCC ACAACGCCGCCTGCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCA ACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAA TGGTAAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGGAGAGGTCGTCTGCCTTCCA AACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCT 841 839 899 1019 1079 1139 1199 1259 1261 1319 1379 1381 1439 1499 1559 1619 1679 1681 1739 1741 1801 1861 959 1799 1859 ò . පු ò ద õ g õ 쉽 ઠે ద ઠે 셤 ò g ò g 8 g ઠે 셤 õ 셤 ò g ò g à ద δ g ઠે 엄 ò 유 8 원 proteins: NOV1a-1t show homology to fibroblast growth factor receptor 4 (FGFR4); NOV2a shows homology to complement factor I precursor; NOV3a shows homology to matrix metalloproteinase-15 precursor; NOV4a shows homology to MC3; NOV5a-5c show homology to T-1ymphocyte surface antigen Ly-9 precursor; NOV6a-6m show homology to fibroblast growth factor-21 (FGF-21); NOV7a-7c show homology to global acroplast growth factor-21 polypeptide variant; NOV8a-8g show homology to antileukoproteinase 1 precursor; NOV9a-9i show homology to LIV-1 protein; NOV10a shows homology to nuclear hormone receptor NOV8-1; NOV11a-11j show homology to transmembrane protein-like; NOV12a-12c show homology to beta-neoendorphin dynorphin precursor. The present sequence encodes a NOVX polypeptide of 120 CACCCGCTCCCTCACTCGCACACACACACAGCGCGCACACAGGCTCCG--CACACAC 178 180 238 240 298 300 358 360 418 420 478 480 538 540 598 900 658 999 718 720 778 780 838 9 9 CCGCCCCCACCCTCCAGCTCCTGCTCCTCCTCCGCTCCCCATACACAGAGGCGCTCC CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCTGGTCACAGCCCAAGCCAGGCCCCCC CGCGGAACCTCTCGGCTGTGTCTCCCATGAGTCGGGATCGCAGCTCCCCCACCACCGG CGCCACAGGCACTCAAAGCCCACTGCGGAAGAGGGCAGCCCGGCAAGCCCGGGCCCTGAGC CTCCTACACTCTCAGCCTCCGCTGGAGAGACCCCCAGCCCCACCATTCAGCGCGCAAGAT ATANATGACGTGCCGAGAGCGAGCGAACGCGCAGCCGGGAGAGCGGGAGTCTCCTGCCT ACTICGCICICCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG ACTICGCITCICCCGCGCGCCCCCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGTGCCGGCAGTGGC CTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCCGCAGCCCTTCCGGGACAGCAGCTGT GACTCCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAAC GACTCCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAAC CGCCACAGCACTCCAAAGCCCCACTGCGGAAGAGGGCAGCCCGGGCAAGCCCGGGCCCTGAGC CTCCTACACTCTCAGCCTCCGCTGGAGAGACCCCCCAGCCCCACCATTCAGCGCGCAAGAT CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC CTGGACCCTTAGCGGTGCCGGGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTC CTGGACCCTTAGCGGTGCCGGGCACTGCCGGCGCTTCGCCTCGCCTCGCCGCGCTC ACCCTCCAGATATGCCCTGCGTCCAAGCCCCAATATAGCCCTTCCCCGCGGTTCCAGTT ACCCTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTT CGTGGAGGTGGGAACAGCGGCGATCCTCCCCCCTGGTCACAGCCCAAGCCAAGACGCC CTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGCAGCCTTTCCGGGAACAGCAGCTGT Gaps 8; Length 3802; Sequence 3802 BP; 919 A; 1141 C; 912 G; 830 T; 0 U; 0 Other; Indels Ouery Match 98.1%; Score 3722; DB 12; Best Local Similarity 99.4%; Pred. No. 0; Matches 3779; Conservative 0; Mismatches 15; the invention. 241 61 61 121 121 179 181 239 299 301 359 361 419 479 539 541 599 629 719 779 421 601 481 661 721

1258

1378

1558

1560

1440

1618

299 GAACAGCCAAGGGTGGTCCCCAGGGTAGGTGTCTTAAAATTGGTCCCTTGAAAAT 3060 301 GAACAGCCAAGGGTGGTCCCCCAGGGTAGGTGTCTTTAAAATTGGTCCTTTAAAT 3160 302 GAACAGCCAAGGGTGGTCCCCCAGGGTAGGTGTCTTAAAATTGGTCCTTTTAAT 3118 301 JATCCTTCCTTATTTTAACAATGGTAAAACAGCCAAAAACAAATCAAACAAA	RESULT 5 ADE25701 standard; CDNA; 5828 BP.  XX AC ADE25701; XX XY XY XX
1919 GONTGATGATGACCTTGCCGAGCTTTAACAACTCCAACACCCCAGGAGTTTTATT 1918  1911 GATTGATGACTCCCCCTGAGCTTTAACAACTCCAACACCTCAACACTCTGATTATT 1918  1911 GATTGATGACTCCCCCCAGCCCCCCTGAGCTCTCAACACCTCGAGAACTTTTTGATTATT 1918  1911 GATTGATGACTCCCCCCAGCCCCCCCATTAACACCTCGCGAGAACTTTTTGATTATT 1918  1911 GATTGATCACCTCCTGAGCCTCCATTAACACCTCGCGAGAACTTTTTGATTCCCCC 2019  1911 GATTGATCACCTCCTGAACTCCCCCCATTATTCCAACACTTTTTGATTCTCCCCC 2019  1911 GATTGATCCCCCCAACACTTCCATTACCAACACTTTTTTTT	2759 GCTCTTTTCCTTACAACCTAAAACTTGCAGAGTATTGTGTTGGGGTTGTT 2818 2761 GCTCTTTTCCTTACAACCTAAAACTTGCAGAGTATTGTGTTGGGGTTGTT 2818 2761 GCTCTTTTACGAACCTAAAGCTGGAGAGTATTGTTGTTTGT

Tue

```
361
                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                            301
                                                                         359
                                                                                                                                   419
                                                                                                                                                                421
                                                                                                                                                                                          479
                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                     539
                                                                                                                                                                                                                                                                                                              599
                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                        629
                                                                                                                                                                                                                                                                                                                                                                                                                                719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                8 6
                                                                         ò
                                                                                                셤
                                                                                                                                   ઠે
                                                                                                                                                           임
                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                        The invention relates to a combination comprising several polymucleotides having any one of 127 sequences (S1) such as the sequence of human call and maRNA for KIAA0310 protein, leukotriane A4 hydrolase, human GR1-142 protein mRNA, human K+ channel beat 2 subunit mRNA, etc., and their complements. The cDNAs are differentially expressed to Libs (Hippopolysaccharide)-treated foam cells. Also included are obtaining an extended or full length gene from a library of nucleic acid sequences, an expression vector containing the nucleic acids, a host cell containing the vector, a purified polypeptide appearing as ADE25750 and ADE25751, producing a protein by culturing the host cell, and a composition comprising a purified antibody that specifically binds to the proteins. The foam cell-expressed nucleic acids are useful for a high throughput detection of differential expression of one or more composition comparison with a standard defines early, mid or late throughput screening of a library of molecules or compounds to identify a ligand which binds a polynucleotide. The library is chosen from high throughput screening of a library of molecules or compounds to identify a ligand which binds a polynucleotide. The library is chosen from by untifying a ligand from a sample for making a antibody. The compounds to identify at least one ligand which specifically binds a context of the library of molecules or compounds to identify at least one ligand which specifically binds a companients on a microarray which can be used for detecting related cards are useful companients on a microarray which can be used for detecting related coll-expressed nucleic acids are useful coll-emptre on a microarray which can be used for detecting a clated in a sample, diagnosing cardiovascular disease, atherosaclerosis. The present sequence represents a cDNA whose expression is upregulated in LPS treated foam cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC 298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 ceccechéchédacececerceceserentricaneserendades de 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                        Combination containing several polynucleotide that are differentially expressed in foam cells and complements of the polynucleotides, useful for diagnosing cardiovascular disease or atherosclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATAAATGACGTGCCGAGAGAGAGCGAACGCGCAGCCGGGAGAGGGGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTTCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCCGGTGCAGCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGCCCCCACCCTCCAGCTCCTCCTCCTCCGCTCCCCAAAACACAGACGCGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCGCCCCCCACCCTCCTGCTCCTCCTCCTCCGCTCCCCATACACAGACGCGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATAAATGACGTGCCGAGAGAGGGGAACGCGCAGCCGGGAGAGCGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 5828 BP; 1535 A; 1422 C; 1242 G; 1534 T; 0 U; 95 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 10; Length 5828;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                   Kaser MR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 3679.2;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO 105; 37pp; English.
                                                                                                                                 g,
                                                                                                                                   Porter
                                            18-SEP-2002; 2002US-00247671
                                                                       19-SEP-2001; 2001US-0323784P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 98.1%;
Matches 3728; Conservative
                                                                                                    GENOMICS INC.
                                                                                                                                Shiffman D,
                                                                                                                                                             WPI; 2003-875398/81
                                                                                                    (INCY-) INCYTE
               16-OCT-2003
                                                                                                                                 Ļ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

1140 1198 418 420 658 720 778 840 898 900 958 480 600 CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCCTGGTCACAGCCCAAGCCAGGACGCC CGCGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCG 841 AGCTGACCATGGACCTTGGCACCTGAGATCACGGCTACAGCCACCACGTCCCTGCCCA AGTCCCCACCGTCCACCCCCCACCACCGCGGCCTTCCCCCCCGCAGGCGGGGGCGTTATGGG CTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGCAGCCCTTCCGGGACAGCGAGT GACTCCCCCCAGTGCAGATTTCGGGACAGCTCTTAGAAACTCGCTCTAAAAGACGGAAC GACTICCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAAGACGGAAC CTCCTACACTCTCAGCCTCCGCTGGAGAGACCCCCGGCCCCACTTCAGCGCGCAGAGT crecracacretedecreeeresagasacceeecaseecearreageseecearre 721 ACCCTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTT 781 ATGCGGCGCAGACATACAGCTCGGAATACACCACGGGGATCATGAACCCCGGACTACACCA GCATCAGTACCTTCGTGGAGGGCTACTCGAGCTACGAACTCAAGCCTTCCTGCGTGT 1019 ATCACCACCACCACCACCACCACCACCACCATCACCAGCAGCAGCATCAGCAGCATCCA TTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCACCCCCACCTCCATGAACTTCAAGC 1141 AGTCCCCACCGTCCACCCCCCACCACGCCGGCCTTCCCCCCCGCAGGCGGGGGCGTTATGGG TGAAGGCGGTCCCCACGGTGGCCGGCGCGCTTTCCCGCTCTTCCACTTCAAGCCCTCGC CGCCGCATCCCCCCGCGCCCAGCCCGGCCGGCGCCACCACCTCGGCTACGACCCGACGG CGCGGAACCTCTCGGCTGTGCTCCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCG CGCCACAGACTCAAAGCCCCACTGCGGAAGAGGGCAGCCCGGCAAGCCCGGGCCCTGAGC 541 CGCCACAGGCACTCAAAGCCCACTGCGGAAGAGGCCAGCCCGGCAAGCCCGGGCCCTGAGC CTGGACCCTTAGCGGTGCCGGGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTC AGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCA GCATCAGTACCTTCGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGT TTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGC 1201 ACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCGCCGA CTCACCGCCTCCGGGAGCCGCTGGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGT ATGCGGCGCAGACATACAGCTCGGAATACACCACGGAGATCATGAACCCCGGACTACACCA ACGAGGCACTGCCCTCGGCGCCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCGCCGA

Db 2461 GGAGCCCACCGAGTCCTAGGTCCTGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCT 252	2517 GGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCAT  2521 GGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATCATCATCATCATCATCATCATCA		2637	297 CCTGTCCTTCCTTAAGAGAAAAGCAGCTCTGTAGAAAGCAAAGCAAAGCAAAGCTTTTTTTT	2757 TGGCTCTTTTCCTTACACCTAAACCTGAAAACTTGCAGAGTATTGTGTGTG	2817	28// AAGAMATIGCIAACAAGGACTITIGGACAATGCIATCCAGGAGGAAAAAAAGGATAA	295/ TATAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAAC	2997 AGAACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTGTCTTAAGATTGGTCCCTTGAAA	3057 ATATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAACAAGGCAGAAACTTCCTTTTAA 3061 ATATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAACAAGGCAGAAACTTCCTTTTAA	3117 TITCCTTCTTCCTTTATTTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCAGACATTACTTAC	3177	3237	3297 3301	3361 TCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGAAGAACCAGAATCCC	TGCCCTGACTGTCCAGCTATCCTGAAAGTGGATTATAAACTGGATTACATGTAACTGGATTACATGTAACTGGAAAGTGGATTATAAACTGGAATAACATGTAAC	Qy 3477 IGITITGGTTGTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCTTTGGTTATAGTA 353  Db 3481 IGITITGGTTGTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCTTCAGTTATAGTA 354	Qy 3537 ACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGACTATTTGATCCCTAGATA 359
1379 CCGCTGCCGCGCTGCCGCGTGCGGAGCCGCAGCCGCGCGGGGCAGCCAGGCGGCGGCG 1438	CGCTTGAGAGCCACCGTACGGGCTGCCGCTGGCCAGAGGGCGCGCGC	TGGGCGAGAGTCCCAGCC 1558	TGCCGTCGCCCAGCAGGAG-CTCGTCGTCGAGGGCACGTGTGCCGTGTGCGGG 1617 	1618 GACAACGCCGC-CTGCCCAGCACTACGGCGAACCTGCGAGGGCTGCAAGGGCTTTTTT 1676	1677 CAAGAGAACAGTGCAGAAAAATGCAAAATTTGCTTGCCTGGCAATAAAAATGGT 1736	1737 AGACAAGAGGCGGAAAGCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGG 1796	1797 AATGGTAAAAGAAGTTGTCCGTACAGATAĞTCTGAAAGGGAGAGAGAGTCGTCTGCCTTC 1856 	1857 CAAACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAAT 1916	1917 CTGCATGATGACTCTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTA 1976	1977 TTCCAGATACTGTCCCACTGAGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACA 2036	2037 ATTCTACAACCTCCTGACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAGATTCC 2096	2097 GGGATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGA 2156 2101 GGGATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGA 2160	2157 GCTGTTTGTCCTCAGACTTTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTG 2216 2161 GCTGTTTGTCCTCAGACTTTCCATCAGGTCAAACACTGCTGAAGGATAAGTTTGTGTTCTG 2220	2276 2280	2277 TATTAAAGACTTTTCCTTAAATTTGCAGAGCCTGAACCTTGATATCCAAGCCTTAGCCTG 2336	2396	AGAGCTATGCAACAAGATCACAAGCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCT 2456	TATGCAACAAGATCACAAGCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCT 2460 CCCACCGAGTCCAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCT 2516

```
3660
                                                                                                                                                                                                    ACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATA 3600
                                                                                                                                                                                                                                                                                     A---TCTTTTTAAAAAATAGTATGAATGTGAATACTAGAAAAAGATTTAAAAAATAGTATG
                                                                                                                                                                                                                                                                                                                   ACCTICTITITAAAAATAGTATGAATGTGAATACTAGAAAAGATTTAAGAAATAGTATG 3780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        T cell; gene; 88; differential expression; T cell activation; antiallergic; cytostatic; immunosuppressive; antimicrobial; gene therapy; allergy; cancer; graft versus host disease; infection; autoimmune disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New combination comprising several cDNAs that are differentially expressed in activated T cells, useful for diagnosing, treating, staging or monitoring treatment for allergy, cancer, infectious and/or autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This invention relates to the sequences of several CDNAs that are differentially expressed in activated T cells. The sequences of the invention may have antialleragic, cytostatic, immunosuppressive and antimicrobial activity and may be used in gene therapy. The invention also comprises a method for screening samples for differentially the methods and compositions of the present invention are useful for diagnosing, treating, staging or monitoring treatment for allergy: concept cytotic spaces have an expensed in sections and/or autoimmune disorders. The present sequence represents a CDNA of the invention that is differentially expressed in activated T cells
                                                                                         TITATAGATATAATITAATITITGTTATIGGTTAAGGAGACAATITITGGAGAGCAAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 5642 BP; 1472 A; 1399 C; 1212 G; 1465 T; 0 U; 94 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hawkins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BG,
                                                                                                                                                                                                                                                                                                                                                                                                      AGTGTGAGTACTAGGAAGGAT 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                    Cocks
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human activated T cell cDNA #53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABX62937 standard; cDNA; 5642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page; 180pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-OCT-2001; 2001US-00002600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25-OCT-2000; 2000US-0243521P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOPKINS C M.
PETERSON D P.
COCKS B G.
HAWKINS P R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peterson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-102381/09,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US2002137077-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              disorders.
                                                                                                                                                                                                                                                                                                                                           3721
                                                                                                                                                                                                                                                                                                                                                                                                   3774
                                                                                                                                                                       3657
                                                                                                                                                                                                                                                                                  3717
                                                                                                                                                                                                                                                                                                                                                                                                                                                            3781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABX62937;
                                                        3597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HOPK/) H
(PETE/) H
(COCK/) C
(HAWK/) H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hopkins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABSULT 6
ABX62937
ABX
                                                        ò
                                                                                               원
                                                                                                                                                              ઠ
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                               පු
                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
```

```
ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        418
                                                                                                                                                                                              120
                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                           178
                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                            238
                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                898
                                                                                                9
                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCCCACCACCACCG
                                                                                                                                                                                                                          CCCGCCCCCCACCCTCCAGCTCCTGCTCCTCCTCCGCTCCCCCATACACAGACGCGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCTGGTCACAGGCCCAAGCCAAGGCCAAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCCTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTT
                                                                                                                              ATAAATGACGTGCCGAGAGAGGCGAGCGGAACGCGCAGCCGGAGAGCGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                              --CACACAC
                                                                                                                                                                                                                                                                                                                                            181 Actroscreteceses contracación en recontración de la Actroscreteces d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTCCCCCCAGTGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTCCCCCCCCAGTGCAGATTCGGGACAGCTCTCTAGAAACTCGCTCTAAAAGACGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCCACAGCACTCAAAGCCCACACGGAAGAGGGCAGCCCGGCAAGCCCGGGCCCTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCTACACTCTCAGCCTCCGCTGGAGAGCCCCCAGCCCCACCATTCAGCGCGCAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCGGCGCGGAGACATACAGCTCGGAATACACCCACGGAGATCATGAACCCCGACTACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCATCAGTACCTTCGTGGAGGGCTACTCGAGCTACGAACTCAAGCCTTCCTGCGTGT
                                                                                                1 ATAAATGACGTGCCGAGAGAGCGAGCGAACGCGCAGCCGGAGGGGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                            ACTICGCICITCCCGCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCCTGGTCACAGCCCAAGCCAGGACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCACAGCACTCAAAGCCCACTGCGGAAGAGGGCAGCCCGGCAAGCCCGGGCCCTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGACCCTTAGCGGTGCCGGGCAGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  credaccerradederecedecadeacreecedecerredecreecedadacerecere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crecracacrecaecerecaeagaeacececaececaecarreaececeaeaar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGCGCCGCAGACATACAGCTCGGAATACACCACGGAGATCATGAACCCCGGACTACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCATCAGTACCTTCGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGT
                                                  Gaps
                                                  ..
60
  Length 5642
                                                                                                                                                                                                                                                                                              CACCCGCTCCCTCACTCGCACACACACACAAGCGCGCACACAGGCTCCG
                                                  Indels
  .,
                                                  99
  BB
  Score 3668.2;
Pred. No. 0;
                                                  0; Mismatches
96.7%;
98.1%;
Query Match
Best Local Similarity 98.1
Matches 3728; Conservative
                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                            179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                 g
                                                                                                                                                                                           ò
                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 а
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
```

```
diagnosing
                                                                                                                            This is the nucleotide sequence of a novel human neuron-derived orphan nuclear receptor gene. The open reading frame encodes a protein of 626 amino acids, which has high homology to the rat NOR-1 receptor. The protein contains several DNA binding domains including P, D and A boxes which also have high homology to the rat NOR-1 DNA binding domains. The nucleic acid and protein can be used to disgnose brain neuronal diseases, such as Alzheimer's disease, Parkinson's disease. Further, the genetic diseases can be treated using the receptor as it inhibits expression of a gene by binding to it
                                                                                                                                                                                                                                                                                                                                                                    GAGGGAAGTCTCCTGCCTCCCGCCCCCACCCCTCCAGCTCCTGCTCCTCCTCCGCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                       CATACACAGACGCGCTCACACCCCCTCCCTCACTCGAACACACAGACACAAGACGCGCGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAGCCCGGGCCTGAGCCTGGACCCTTAGCGGTGCCGGGCAGCACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACCATTCAGCGCGCAGAAGATACCCTCCAGATATGCCCTGCGTCCAAGCCCAAATATAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                       CAGGCTCCGCACACACACACTTCGCTCTCCCCGCGCGCTCACACCCCCTCTTGCCCTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTCGCTCTAAAAGACGGAACCGCCACAGCACTCAAAGCCCACTGCGGAAGAGGGCAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGCGTCCAAGCCCCAATATAGCCC
                                                                                                                                                                                                                                                                                                                                                   GAGCGGAGTCTCCTGCCTCCCGCCCCCCCCCTCCAGCTCCTGCTCCTCCTCCTCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGGCTCCG--CACACACACTTCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTGCCGGTGCAGCGCGCGCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTGCCGGTGCAGCGCGGCGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACGGTGCCGCCATGGCCGTGGAAACAGCGGCGGCATCCTCCCCCCCTGGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACGGTGCCGGCAGTGGCCGTGGAGGTGGGAACAGCGGCGCGCATCCTCCCCCCTGGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCCCAA - - GCCAGGACGCCCGCGGAACCTCTCGGCTGTGCTCCCCATGAGTCGGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGCATCCCCCACCAGCGGCTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAAGCCCGGGCCCTGAGCCTGGACCCTTAGCGGTGCCGGGCAGCACTGCCGGCGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTCGCCGGACGTCCGCTCCTACACTCTCAGCCTCCGCTGGAGAGACCCCCAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTTCCGGGACAGCAGCTGTGACTCCCCCCCAGTGCAGATTTCGGGACAGCTCTAAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cerrecessacascaserstecesecessasarressasacaserererasaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTCGCTCTAAAGACGGAACCGCCACAGCACTCAAAGCCCACTGCGGAAGAGGGCAGCCC
                                                                                                                                                                                                                                                                                                                         Gaps
                                                    Human neuron-derived orphan nuclear receptor gene - useful for brain diseases such as Alzheimer's or Parkinson's disease or
                                                                                                                                                                                                                                                                                               DB 2; Length 3762;
                                                                                                                                                                                                                                                                                                                         10;
                                                                                                                                                                                                                                                                      Sequence 3762 BP; 907 A; 1128 C; 898 G; 829 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                         24; Indels
                                                                                                                                                                                                                                                                                               Score 3653.6;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                          Japanese
                                                                                                                                                                                                                                                                                               96.3%;
                                                                                                                                                                                                                                                                                                                         Matches 3728; Conservative
                                                                                                          8pp;
                1997-253003/23
                                                                                                          5-8;
                                                                                                                                                                                                                                                                                                             Local Similarity
                             P-PSDB; AAW16398
                                                                                 neuroblastoma.
                                                                                                         Claim 1; Page
                                                                                                                                                                                                                                                                                                                                                                              н
                                                                                                                                                                                                                                                                                                                                                                                                        103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                   43
                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
  ò
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 업
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6. B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                3355
                                                                                                                                   3415
                                                                                                                                                                                                                                           3535
                                                                                                                                                                                                                                                                    3540
                                                                                                                                                                                                                                                                                               3595
                                                                                                                                                                                                                                                                                                                                                   3655
                                                                                                                                                                                                                                                                                                                                                                              3660
                                                                                                                                                                                                                                                                                                                                                                                                                                3720
                                                                                                                                                                                                      CTGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTAA 3480
                                                                                                                                                                                                                                                                                                                         3600
                                                                                                                                                                                                                                                                                                                                                                                                        3715
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA---TCTTTTTAAAAATAGTATGAATGTGAATACTAGAAAAGATTTAAAAAATAGTAT 3772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                neuron-derived orphan receptor; open reading frame; homology; rat; DNA binding domain; brain; neuronal; Alzheimer's disease;
CATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTAAAGTGCTG
                                                                                                      3301 TCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCG
                                                                                                                                                           Arccerrengaderargeccarceandacerrirangeccarrerrangeanceance
                                                                             TCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCG
                                                                                                                                                                                                                                                       TITTATAGATATAATTTTTGTTATTGGTTAAGGAGACAATTTTGGAGGCAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                      AATCTTCTTTTTAAAAAATAGTATGAATGTGAATACTAGAAAAGGATTTAAGAAATAGTAT
                                           3241 TCTTACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAGGAGGCAG
                                                                                                                                 ATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCC
                                                                                                                                                                                    CTGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTAA
                                                                                                                                                                                                                                                                                             AACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGAT
                                                                                                                                                                                                                                                                                                                                                                 CTGTTTTGGTTGTTCTATCAACCCCACAGAGTTCCCTAAACTTGCTTCAGTTATAGT
                                                                                                                                                                                                                                                                                                                                                  AAGAACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= a
/product= "NOR-1 orphan receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human neuron-derived orphan receptor NOR-1 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAT73334 standard; cDNA to mRNA; 3762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGTGTGAGTACTAGGAAGGAT 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
692. .2572
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3781 GAGTGTGAGTACTAGGAAGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95JP-00242909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95JP-00242909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOR-1; DNA binding domai
Parkinson's disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TERU ) TERUMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JP09084585-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31-MAR-1997
                                                                             3296
                                                                                                                                                          3361
3181
                          3236
                                                                                                                                 3356
                                                                                                                                                                                                                                                                                            3536
                                                                                                                                                                                     3416
                                                                                                                                                                                                                                       3476
                                                                                                                                                                                                                                                                                                                                                 3596
                                                                                                                                                                                                                                                                                                                                                                                                                                                         3716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3721
                                                                                                                                                                                                              3421
                                                                                                                                                                                                                                                                  3481
                                                                                                                                                                                                                                                                                                                     3541
                                                                                                                                                                                                                                                                                                                                                                           3601
                                                                                                                                                                                                                                                                                                                                                                                                     3656
                                                                                                                                                                                                                                                                                                                                                                                                                                3661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT73334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAT73334
                                            8
                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                          õ
                                                                                              8
                                                                                                                               δ
                                                                                                                                                                                    ð
                                                                                                                                                                                                         중 음
                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

'n 102

162

9

120 220 180

280 240 340

300

398

360 458 420 518 480 578 720

ņ

Milbrandt

Conneely OM,

MEDICINE

```
The present sequence is that of human nor-1 nuclear receptor nucleic acid 1651190. Nor-1 has been identified as a molecular target for therapeutic intervention in the treatment of myeloid leukaemia. The invention provides methods of inhibiting the proliferation of a haematopoietic stem cell or a haematopoietic myeloid cell by modulating the level of a nor-1 and/or nur77 nuclear receptor. This involves increasing the level of the receptor polypeptide or polynucleotide. e.g. by administration of a vector comprising the polynucleotide. A claimed method of treating leukaemia comprises modulating a nor-1 and/or nur77 nuclear receptor in a haematopoietic stem cell or myeloid cell. Also claimed are methods of identifying an upregulator of expression of nor-1 and/or nur77, of identifying a compound for the treatment of leukaemia, and a mouse model for leukaemia comprising a mouse having defective nor-1 and nur77 nucleic
                                                                                                                                                                                                                                                                    Inhibiting proliferation of a hematopoietic cell, useful for treating or preventing leukemia, comprises modulating the level or activity of nor-1 and/or nur77 nuclear receptor.
                                                                                                                                                                                                                                                                                                                                Disclosure; SEQ ID NO 1; 101pp; English.
                                                                                                                      17-APR-2002; 2002US-0373238P.
                                                                                          15-APR-2003; 2003WO-US011804
                                                                                                                                                  (BAYU ) BAYLOR COLLEGE
(UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                            WPI; 2003-854017/79.
                                                                                                                                                                                                                                           GENBANK; 1651190.
                                   WO2003088812-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          acid sequences
                                                                                                                                                                                             Mullican SE,
      Homo sapiens.
                                                             30-OCT-2003
    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                               3038
                                                                         3000
                                                                                                                                                                 3158
                                                                                                                                                                                             3120
                                                                                                                                                                                                                            3218
                                                                                                                                                                                                                                                        3180
                                                                                                                                                                                                                                                                                     3278
                                                                                                                                                                                                                                                                                                                  3240
                                                                                                                                                                                                                                                                                                                                               3338
                                                                                                                                                                                                                                                                                                                                                                             3300
                                                                                                                                                                                                                                                                                                                                                                                                          3398
                                                                                                                                                                                                                                                                                                                                                                                                                                      3360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3660
                                                                                                        3098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3518
                                                                                                                                    3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3720
                                                                                                                     2941 TGCTTTGTATTTAAAACAAGAACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTGTCTTA
                                                                                                                                                                               GCAGAAACTTCCTTTTTAATTTCCTTCTTTTTTTTTAACAAATGGTGAAAGATGGAGG
                                                                                                                                                                                                                                          ATTACCTACAAATCAGACAAGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                        GTTCACCTTCCCTGTCGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACTGGATTACATGTAACTGTTTTGGTTGTGTTCTATCAACCCCACCAGAGTTCCCTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTGCTTCAGTTATAGTAACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGGGACAATAAAGGATTTTTATAGATATAATTTTAATTTTGGTAATTTGGGTTAAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -CAATTTTGGAGGGAAGCAAA---TCTTTTAAAAATAGTATGAATGTGAATACTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAATTTTGGAGAGAAGCAAATCTTCTTTTTAAAAAATAGTATGAATGTGAATACTAGA
                                              TGCTTTGTATTTAAAAACAAGAACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTGTCTTA
                                                                                                       3039 AAGATTGGTCCCTTGAAAATATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAG
                                                                                                                                                                GCAGAAACTTCCTTTTAATTTCCTTCTTCCTTTTTTAACAAATGGTGAAAGATGGAGG
                                                                                                                                                                                                                          ATTACCTACAAATCAGACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGC
                                                                                                                                                                                                                                                                                     AATTTTTTAAAGTGCTGTCTTACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGG
                                                                                                                                                                                                                                                                                                                  AATTTTTTAAAGIGCTGTCTTACTAAGICTTGTTTATTAACTCTCTCTTATATGG
                                                                                                                                                                                                                                                                                                                                              AAATAAAAAGGAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGT
                                                                                                                                                                                                                                                                                                                                                                AAATAAAAAGGAGGAGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                        GTTCACCTTCCCTGTCGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGATGGAACCAGATCCCTGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTGATGGAACCAGATCCCTGCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACTGGATTACATGTATCTTTTGGTTGTTCTATCAACCCCACCAGAGTTCCCTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTGCTTCAGTTATAGTAACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGGGACAATAAGGATTTTTATAGATATAATTTTAATTTTTGTTA--TTGGTTAAGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3159
                                                                                                                                                                                                                                                                                  3219
                                                                                                                                                                                                                                                                                                                                              3279
                                                                                                                                  3001
                                                                                                                                                                3099
                                                                                                                                                                                             3061
                                                                                                                                                                                                                                                      3121
                                                                                                                                                                                                                                                                                                               3181
                                                                                                                                                                                                                                                                                                                                                                          3241
                                                                                                                                                                                                                                                                                                                                                                                                       3339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3661
                  2881
                                                                                                                                                                                                                                                                                                                                                                                                                                    3301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3721
                                                                   a
                                                                                                                            유
                                                                                                                                                        ઠે
                                                                                                                                                                                     g
                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                            ò
                                                                                                    ઠે
```

```
cecececececerecienes de la constant 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCCTGGTCACAGCCCAAGCCAGGACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTGGAGGTGGGAACAGCGGCGCGTCCCCCCTGGTCACAGCCCAAGCCAGGACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCACCAGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCACCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACCCGCTCCCTCACTCGCACACACACACACGCGCGCGCACACAGGCTCCG--CACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                      ATAAATGACGTGCCGAGAGAGCGAGCGAACGCGCAGCCGGGAGAGAGGCGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Actrodetrerecededecreacecererrecerradecerriseesegrecadedes
                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                        Indels 368;
                                                                                                 Length 4162;
Sequence 4162 BP; 1017 A; 1224 C; 991 G; 930 T; 0 U; 0 Other;
                                                                                                 DB 10;
                                                                                                                                                                                                        15;
                                                                                            Score 3352; DE
Pred. No. 0;
0; Mismatches
                                                                                                 88.4%;
                                                                                                                                                  Best Local Simitary
Matches 3779; Conservative
                                                                                                                                                                                                                                                                                                               ч
                                                                                                                                                                                                                                                                                                                                                                                                                н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

418

Human; nor-1; nuclear receptor; receptor; leukaemia; gene therapy; cytostatic; haematopoietic cell; ds.

nuclear receptor nucleic acid 1651190.

(first entry)

12-FEB-2004 Human nor-1

BP

ADF28866 standard; DNA; 4162

420

120

9

178

**ACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT** 

851

20

```
The present invention describes a method (M1) for screening for an antinoplastic agent. The method involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, determining a change in expression of at least one gene (I) of a signature gene set, where (I) comprises a sequence (S) selected from 8447 sequences (given in ABL61664 to ABL70110), or is at least 95% identical to (S), where a change in expression is indicative of anti-neoplastic activity. (I) has cytostatic activity and can be used in gene therapy. M1 can be used for screening an anti-neoplastic agent, and can be used for producing a product which is the data collected with respect to the anti-neoplastic agent as a result of M1, and the data is sufficient to convey the chemical structure and/or properties of the agent. M1 can be used in the treatment of cancer such as colon, breast, stomach, lung, thyroid, oesophageal, ovarian, kidney, prostate or pancreatic cancer, adminerating ductal cancer, infiltrating lobular cancer, squamous call carcinoma, neuroendocrine carcinoma, papillary carcinoma and Wilm's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           reening for anti-neoplastic agent involves exposing cells to a chemical sut to be tested for anti-neoplastic activity, and determining a change expression of a gene of a signature gene set.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4977 BP; 1394 A; 1147 C; 1042 G; 1394 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Endress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ebner R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; SEQ ID NO 229; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ř,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Carter
                                                                                                                                                                                  2000US-0236842P.
2000US-0236891P.
                                                                                                                                                                                                                                                                                                                           2000US-0237598P.
                                                                                                                                                                                                                                                                                                                                          2000US-0237604P.
                                                                                                        2000US-0236032P
                                                                                                                                                     2000US-0236109P
                                                                                                                                                                       000US-0236111P
                                                                                                                                                                                                                 2000US-0237172P.
                                                                                                                                                                                                                                                 2000US-0237278P
                                                                                                                                                                                                                                                                              2000US-0237295P
                                                                                                                                                                                                                                                                                             2000US-0237316P
                                                                                                                                                                                                                                                                                                          2000US-0237425P
                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-2000; 2000US-0245084P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Augustus M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Weaver Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                    (AVAL-) AVALON PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-188264/24.
                                                                                                                                                                                                               02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
                                           27-SEP-2000;
27-SEP-2000;
27-SEP-2000;
28-SEP-2000;
                                                                                                       28-SEP-2000;
28-SEP-2000;
28-SEP-2000;
                                                                                                                                                                                                                                                                                           02-OCT-2000;
                                                                                                                                                                                                                                                                                                                          03-OCT-2000;
03-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                       03-OCT-2000;
01-NOV-2000;
                                                                                                                                                     28-SEP-2000;
                                                                                                                                                                       28-SEP-2000;
                                                                                                                                                                                  29-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Young PE,
Soppet DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Screening
```

1750 1330 1390 1450 1510 1630 1690 1030 1210 1270 1570 GAAACCGAIGICAGIACTGTCGCATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG 1173 AGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGACGTC 1113 CCCTIGICCGAGCTTTAACAGACTCAACACCCAGAGAICTTGATTAITCCAGAIACTGTC 1990 970 513 573 633 693 753 873 334 GGCCCTTGATCAAAGTGGAGGAGGGGGGGGCGCCCAGCTACCATCACCATCACCACCACC GCCAGCACTACGGCGTGCGAACCTGCGAGGCTGCTAAGGCTTTTTTCAAGAAAAGGCTGCCA 1174 TTGTCCGTACAGATAGTCTGAAAGGGAGGAGGAGGTCGTCTGCCTTCCAAACCAAAGGGCCC CATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGAATG ACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT TTGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGC CCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGT CCACCCCCACGCGGCCCTTCCCCCCGCAGGGGGGGGGGTATGGGACGAGGCACTGC CCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCCGCCGATGAAGGCGGTCC CCACGGTGGCCGCGCGCTTCCCGCTCTTCAAGCCCTCGCCGCGCATCCCC CCACGGTGGCCGGCGCGCTTCCCGCTCTTCCACTTCAAGCCCTCGCCGCCGCCGCATCCCC TCACGCCTCCCTACCGCGTCCAGCCTGCTGCGGGGAGAGTCCCAGCCTGCCGTCGCCGC CCAGCAGGAGCTCGTCGTCTGGCGAGGGCACGTGTGCCCGTGTGCGGGGACAACGCCGCCT CCAGCAGGAGCTCGTCTGGCGAGGGCACGTGTGCCGTGTGCGGGGGACAACGCCGCCT GCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAGTGC AGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGACGTC GAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG CATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGAATG TCGTGGAGGCTACTCGAGCACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGC GGCCCTTGATCAAAGTGGAGGAGGGCGGCGCCCAGCTACCATCACCATCACCACCACC CCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGT CCGCGCCCAGCCCGGCCGCCACCACCTCGGCTACGACCCGACGGCCGCTGCCGCGC ACCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCGCTGGCCTTCCCGCCTCTCGGCC TTGTCCGTACAGATAGTCTGAAAGGGAGGAGGTCGTCTGCCTTCCAAACCAAAGAGCC 514 814 874 934 1691 1054 1114 1031 454 1631 1271 1331 1391 754 1511 1571 1811 1931 214 911 971 1091 1151 1211 1451 1751 1871 274 574 634 694 994 d g d g 엄 g g 셤 g g g 엄 셤 g 셤 엄 g ò g ò ò à ò ò 8 ò ò ò ò ò ò ò ò ò ò ·8

6

Gaps

19;

Indels

DB 6; I

Score 2875; DB Pred. No. 0; 0; Mismatches

Query Match
Best Local Similarity 98.1%;
Matches 3008; Conservative

733 94 791

ò

8 & B

Length 4977;

153 850

CTGTCGTCCAAGCCCAATATAGCCCTTCCCTCCAGGTTCCAGTTATGCGGTCGTCAGA

CCCTGCGTCCAAGCCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGG---CGCAGA

CATACAGCTCGGAATACACCACGGAGATCATGAACCCCCGACTACACCAAGCTGACCATGG

CATACAGCTCGGAATACACCACGGAGATCATGAACCCCGACTACACCAAGCTGACCATGG

213

1030

970

1090

453

1150

1210

1270

1330

693

1390

753

1450

```
CCCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACTGTC 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1691 AGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGACGTC 1750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGAATG 1293
                                                                                                                                                                                                                                                                         334 GGCCCTTGATCAAAGTGGAGGAGGGCGCGCCCCAGCTACCATCACCATCACCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGCCTGCCGCTGGGAGCCGCGCGCGCGCCAGCCAGGCCGCCGCGCTTGAGAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   994 GCCAGCACTACGGCGTGCGAACCTGCGAGGCTGCAAGGGCTTTTTCAAGAGAACAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1174 Trigricceracadaragricridaaagggaggaggaggricgricgriccaaaccaaagaggc
                                                                                                                                                   TTGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGC
                                                                                                                                                                                                                          GGCCCTTGATCAAAGTGGAGGAGGGGCGGCGCCCAGCTACCATCACCATCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGCCCGGAGGACGAGGTGCTGCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGGTGGACCCGCCGATGAAGGCGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1271 CCACGGTGGCCGGCGCGCTTTCCCGCTTTCCACTTCAAGCCCTCGCCGCGCCGTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGCGCCCAGCCCGGCCGCCGCCACCACCTCGGCTACGACCGGACGGCCGCTGCCGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGCGCCCAGCCCGGCCGCCGCCACCACCTCGGCTACGACCCGACGCCGCTGCTGCCGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     814 Acceptacesecrececrescentates de la Acceptace de la Accepta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        934 CCAGCAGGAGCTCGTCTGTGCGAGGCACGTGTGCCGTGTGCGGGGACAACGCCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGGCTTTTTCAAGAGAACAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGTCCGTACAGATAGTCTGAAAGGGAGGAGGTGGTCTGCCTTCCAAACCAAAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGAATG
ACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT
                                   TCGTGGAGGGCTACTCGAGCAACTACGAACTCCAAGCCTTCCTGCGTGTACCAAATGCAGC
                                                                                                                                                                                                                                                                                                                                       1031 ACCACCACCACCACCACCATCACCAGCAGCATCAGCAGCATCCAGCCTTCCTCCAGCCT
                                                                                                                                                                                                                                                                                                                                                                                               454 CCAGCCCGGAGGACGAGGTGCTGCCCACCTCCATGTACTTCAAGCAGTCCCCACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     caacactaaccaacacacactricacactricaactricaaacccricacacacaccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCCGTACGGGCTGCCCTGGCCAAGAGGGCGCCCCGCTGGCCTTCCCGGCCTCTCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                874 reacecerceceracecerceaecerecrecesesasaseceaecereceaecerecee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1571 CCAGCAGGAGCTCGTCGTCTGGCGAGGGCACGTGTGCCGTGTGTGCGGGGACAACGCCGCTT
                                                                                                                                                                                                                                                                                                                                                                                                  394
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1091 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1931
  851
                                                                                                                911
                                                                                                                                                                                                                             971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1751
                                                                                                                                                                        274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                               임
                                                                                                                ò
                                                                                                                                                                  임
                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to detecting (M1) granulocyte (GC) activation (GCA), by detecting the level of expression of gene (s) (GS) identified by DNA chip analysis as given in the specification, and comparing the expression level to an expression level in an unactivated GC, where corrected an expression level in an unactivated GC, where corrected an indicative of GCA, Also included are modulating (M2) GA by contacting GC with an agent that alters the expression of at least one gene in GS; (2) screening (M3) for an agent capable of modulating GCA or an inflammation (especially chronic) in a tissue, an allergic response in a subject, exposure of a subject to a profile; (3) detecting (M4) an inflammation (especially chronic) in a tissue, an allergic response in a subject, exposure of a subject to a pathogen or sterile inflammatory disease using the gene expression of the gene is indicative of inflammation; (4) treating cypression of the gene is indicative of inflammation; (4) treating cypression of the gene is indicative of inflammation; (4) treating corresponse in a subject, exposure of a subject to a pathogen or sterile inflammation (especially chronic) in a lissue, an allergic response in a subject, exposure of a subject to a pathogen or sterile inflammatory disease, by contacting a tissue having inflammation (especially chronic) in a tissue, an allergic response in a subject to a pathogen or sterile inflammation in a tissue, an allergic response in a subject to a pathogen or sterile inflammation in a tissue, an allergic response in a subject to a pathogen or sterile inflammation in a tissue, an allergic response in a subject to a pathogen or sterile inflammation in a tissue, an allergic response in a subject to a pathogen or sterile inflammation in a tissue, an allergic response in a subject to a pathogen or sterile inflammation in a tissue, an allergic response in a subject to a pathogen or sterile inflammation in the tissue, an allergic response in the steme of a subject to a pathogen or sterile inflammation in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Detecting granulocyte activation by detecting differential expression of genes associated with granulocyte activation, which serves as diagnostic markers that is useful for monitoring disease states and drug toxicity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           154 CATACAGCTCGGAATACACCACGGAGATCATGAACCCCGACTACACCACAGCTGACCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGG--CGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTGTCGTCCAAGCCCCAATATAGCCCCTTCCCCTCCAGGTTCCAGTTATGCGGTCGTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATACAGCTCGGAATACACCCCGGAGATCATGAACCCCGACTACACCAAGCTGACCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 75.8%; Score 2875; DB 6; Length 4977; Best Local Similarity 98.1%; Pred. No. 0; Marches 3008; Conservative 0; Mismatches 40; Indels 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 4977 BP; 1394 A; 1147 C; 1042 G; 1394 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                        Vockley J;
                                                                                                                                                                                                                                                                                                                                                                           ς,
                                                                                                                                                                                                                                                                                                                                                                           Yamaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; SEQ ID NO 800; 114pp; English
                                                                                                                                                                                                                                                                                                                                                                           Beazer-Barclay Y, Weissman SM,
                                                                                                                                                                                                  03-OCT-2001; 2001WO-US030821.
                                                                                                                                                                                                                                                           03-OCT-2000; 2000US-0237189P
                                                                                                                                                                                                                                                                                                                   (GENE-) GENE LOGIC INC
                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-435328/46.
                                                                                  WO200228999-A2
                                sapiens.
                                                                                                                                             11-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94
                                Homo
  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

1510

873

us-10-608-863-1.rng

us-10-608-863-1.rng

```
1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2171
                                                                                      1271
                                                                                                                                                                                                                                                                                                                                                   1571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1931
                                    1211
                                                             574
                                                                                                               634
                                                                                                                                        1331
                                                                                                                                                                  694
                                                                                                                                                                                           1391
                                                                                                                                                                                                                                              1451
                                                                                                                                                                                                                                                                                                1511
                                                                                                                                                                                                                                                                                                                         874
                                                                                                                                                                                                                                                                                                                                                                           934
                                                                                                                                                                                                                                                                                                                                                                                                      1631
                                                                                                                                                                                                                                                                                                                                                                                                                              994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                              dd
                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                   à
                                                        원
                                                                                  ⋧
                                                                                                         g
                                                                                                                                       ò
                                                                                                                                                           ద
                                                                                                                                                                                   ð
                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                   The present invention relates to PRO proteins and their coding sequences.

The PRO proteins are useful for diagnosing and treating a B cell related disorder, e.g. X-linked infantile hypogammaglobulinemia, polyasccharide antigen unresponsiveness, selective IGA deficiency, burkit's Ilymphoma, intermediate lymphoma, follicular lymphoma, type IIA hypersensitivity, rheumatoid arthritis, autoimmune mediated haemolytic anaemia, myasthenia gravis, hypoadrenocorticism, glomerulonephritis, or anytoisnin spondylifis. The PRO proteins are also useful for preparing a medicament for treating a condition that is responsive to the PRO protein, e.g. cancer or immune-mediated inflammatory diseases. The PRO coding sequences are useful as hybridization probes in chromosome and gene mapping, in preparing PRO proteins, or in generating transgenic animals or knockout animals, which in turn are useful in the development and screening of therapeutically useful reagents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCACCCCCACCACGCCGGCCTTCCCCCCGCAGGCGGGGGGTTATGGGACGAGGCACTGC 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ġ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      273
                                                                                                                                                                                         New PRO polypeptide, useful for diagnosing and treating a B cell related disorder, e.g. Burkitt's lymphoma, rheumatoid arthritis, autoimmune mediated hemolytic anemia, myasthenia gravis or ankylosing spondylitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGG--CGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGTCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATACAGCTCGGAATACACCACGGAGATCATGAACCCCGGACTACACCAAGCTGACCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATACAGCTCGGAATACACCACGGGGGATCATGAACCCCGGACTACACCAGGAGATGATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGTGGAGGGCTACTCGAGCTACGAACTCGAGCCTTCCTGCGTGTACCAAATGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCCCTTGATCAAAGTGGAGGAGGGGGGGGCGCCCAGCTACCATCACCATCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCCCTTGATCAAAGTGGAGGAGGGCGCGCCCAGCTACCATCACCATCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Accaccaccaccaccarcaccaccagcagcarcagcagcarcagcarccarrccagccr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4977 BP; 1394 A; 1147 C; 1042 G; 1394 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19;
                                                                                                                 Wood WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 4977;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 75.8%; Score 2875; DB 12; Length Best Local Similarity 98.1%; Pred. No. 0; Matches 3008; Conservative 0; Mismatches 40; Indels
                                                                                                                Schoenfeld JR,
                                                                                                                 ŝ
                                                                                                                Fong
                                                                                                                                                                                                                                                Claim 2; Fig 463; 695pp; English
                                                             16-SEP-2002; 2002US-0411392P
                                                                                                                 ĸ,
                                    15-SEP-2003; 2003WO-US029097
                                                                                                                 Dennis
                                                                                      (GETH ) GENENTECH INC
                                                                                                                                                      2004-329389/30.
                                                                                                                Clark H,
                                                                                                                                                     WPI; 2004-329389/
P-PSDB; ADL83262.
            25-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          733
                                                                                                                Ħ,
                                                                                                                            Ë
                                                                                                                Chiu
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
```

```
2230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1870
                                         1270
                                                                                                                                       1330
                                                                                                                                                                                                                                                                                                                             1450
                                                                                                                                                                                                                                                                                                                                                                                                                          1510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1353
                                                                                        633
                                                                                                                                                                                                                                                                                753
                                                                                                                                                                                                                                                                                                                                                                           813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACTGACCAGGCTGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTTGGAGCTGTTTGTCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1174 TTGTCCGTACAGATAGTCTGAAAGGGAGAGAGGTCGTCTGCCTTCCAAACCAAAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATACTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATACTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1414 TGACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAGATTCCGGGATTTACTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTTTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1534 GACTTTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCTC
                                              CCTCGGCCCCGGCTGCATCGCACCCGGCCCGCTGGACCCCGCCGATGAAGGCGGTCC
                                                                            CCTCGGCGCCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCGCCGATGAAGGCGGTCC
                                                                                                                                       CCACGGTGGCCGGCGCGCTTCCCGCTTCCACTTCAAGCCCTCGCCGCCGCATCCCC
                                                                                                                                                                                                                                  CCGCGCCCAGCCCGGCCGCCCACCTCGGCTACGACCCGACGGCCGCTGCCGCC
                                                                                                                                                                                                                                                                                ACCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCGCTGGCCTTCCCGCCTCTCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCACGCCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCCAGCCTGCCGTCGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGCAGGAGCTCGTCGTCTGGCGAAGGCCACGTGTGCCGTGTGCGGGGACAACGCCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGCAGGAGCTCGTCGTCGTCTGGCGAGGCACGTGTGCCGTGTGCGGGGGACAACGCCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1691 AGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGAGGCGTÇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGTCCGTACAGATAGTCTGAAAGGGAGGAGGTCGTCTGCCTTCCAAACCAAAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTAATGCATGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAAATTCCGGGATTTACTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTCCTCA
```

1270

633

1330

1390

753

693

1450

813

1510

873

1570

933

1630

993

1690

1810

1233

```
TTCTCCGTACAGATAGTCTGAAAAGGAAGAGAGAGGACGTCGTCTGCCTTCCAAACCAAAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTITICCATCAGGTCAAACACIGCTGAAGAITAGGTTTGTGTTCTGCAATGGACTIGTCC
                                                                                                                                                       574 CCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGGACCCGCCGATGAAGGCGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGACGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1751 GAAACCGATGTCAGTACTGTCGATTTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1234 CATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             crcrrcrccagcrrraacagacrcaacacccagagarcrrgarrarrccagaracrgrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1534 GACTITICCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCC
454 CCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAGTCCCCACCGT
                                                              CCACCCCCACGCCGGCCCTTCCCCCCGCAGGCGGGGGTTATGGGACGAGGCACTGC
                                                                                                                             CCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCCGCCGATGAAGGCGGTCC
                                                                                                                                                                                                                        CCGCGCCCCAGCCCGGCCGGCCACCACCACCTCGGCTACGACCCGACGGCCGCTGCCGCGC
                                                                                                                                                                                                                                                                                                                                        TCAGCCTGCCGCTGGGAGCCGCAGCCGCGGGGAGCCAGGCCGCCGCGCTTGAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                 TCACGCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCAGCCTGCCGTCGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                874 TCACGCCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCAGCCTGCCGTCGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGCAGGAGCTCGTCGTCTTGGCGAGGGCACGTGTGCCGTGTGCGGGGACAACGCCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ccacreaccadecrecadecadaardereageargrecaacaarreracaacerec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rgacagecreccarrgargrarecagaagergggggaaaaagarrecgggarrracrgare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTCCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2111
                                                                                                                                                                                                                                                                                                                 1331
                                                                                                                                                                                                                                                                                                                                                                                                         1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2051
                                            1151
                                                                                      514
                                                                                                                                1211
                                                                                                                                                                                                                        1271
                                                                                                                                                                                                                                                                    634
                                                                                                                                                                                                                                                                                                                                                             694
                                                                                                                                                                                                                                                                                                                                                                                                                                                   754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                   g
                                                                                                                                                                                                                                                                р
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                       ઠ
                                                                                 ద
                                                                                                                                8
                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                              This invention relates to the novel association of protein sequences (and the genes which encode them) to the NF-kappaB pathway. The invention may be useful for the production of compounds with an antinflammatory, cytostatic, hepatotropic, virucide, antiarthritic, antinflammatory, cytostatic, hepatotropic, virucide, antiarthritic, antinflammatory, cytostatic, hepatotropic, inmunosuppressive or vulnerary activity or for gene therapy. The proteins and nucleotides are useful for diagnosing, preventing, treating, or ameliorating conditions or diseases associated with the NF-kappaB pathway. The condition is an immune disorder, an inflammatory disorder.

CC diseases associated with the NF-kappaB pathway. The condition is an immune disorder, an inflammatory disorder.

CC diseases associated with the NF-kappaB pathway. The condition is an related to aberrant NF-kappaB regulation, cancer, aberrant apoptosis, hepatic disorders, Hodgkin's lymphomas, haematopoietic tumours, hyper-IgM partic disorders, immunodeficiency, viral infection, host cell cetodermal dysplasia, immunodeficiency, viral replication, host cell cetodermal dysplasia, immunodeficiency, viral replication, enthyroid sick syndrome, stroke, BAB, autoimmuna disorders, disorders related to aberrant acute phase responses, hypercongenital conditions, largeders, disorders related to aberrant acute phase responses, hypercongenital conditions, blirth defects, necroic lessions, wounds, organ transplant rejection, conditions related to organ transplant context solutions related to aberrant signal transduction, use of subject to the novel association with the NF-kappaB pathway of the invention but his orders fine sequence does not appear in the specification but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     273
                                                                                                                                                  New isolated polynucleotides and polypeptides associated with NF-kappaB pathway, useful for diagnosing, treating, or preventing disorders or diseases associated with NF-kappaB pathway.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCTGCGTCCAAGCCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGG--CGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cergregrecaageceaararaecerrecerrecagerrecagrrargegeregreaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATACAGCTCGGAATACACCACGGAGATCATGAACCCCGACTACACCAAGCTGACCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATACAGCTCGGAATACACCACGGAGATCATGAACCCCCGACTACACCAAGCTGACCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCITGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCCTTGATCAAAGTGGAGGGGGGGGGGGCCCCAGCTACCATCACCATCACCACCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGCCCGGAGGACGACGCCCAGCACCACCATGTACTTCAAGCAGTCCCCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4977 BP; 1394 A; 1147 C; 1042 G; 1394 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 4977;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40;
                                            Carman J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 75.8%; Score 2875; D
Best Local Similarity 98.1%; Pred. No. 0;
Matches 3008; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                obtained by the indexer from Genbank.
                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO 63; 237pp; English
                                            Feder JN,
(BRIM ) BRISTOL-MYERS SQUIBB CO
                                            Ã,
                                            Neubauer
                                                                                   WPI; 2004-562168/54.
P-PSDB; ADR14063.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   334
```

2170

1533

2110

1353

ద

ò 쉱 ò

a à q 8 g

유

ò

0y 3311 ACACGTTAATATCCCTAGCAGAGCTGTTCACCTTCCCTGTCGATCCCTTCTGAGGTA 3370 bb 2666 ACACGTTAATATCCCTAGCAGAGCTGTTTCACCTTCCTGTGATCCCTTCTCGAGGTA 2725 0y 3371 TGCCCATCCAGAGCTTTTTAGGCTTTCTTGATGGAACCAGATCCCTGCCTCTCTCC 3430 bb 2726 TGGCCCATCCAGAGCTTTTTAGGCCATTCTTGATGGAACCAGATCCCTGCCTG	RESULT 13 AD131602 LD AD131602 LD AD131602 XX AC AD131602; XX XX XX Human CDNA #928. XX KW Cochn's disease; asthma; ulcerative colitis; hypereosinophila; XX XX Human; gene; 88; immunological response; immunopathological condition; XX XX XX KW Cochn's disease; asthma; ulcerative colitis; hypereosinophila; XX XX KW Cochn's disease; asthma; ulcerative colitis; hypereosinophila; XX
2331 TGCATCGACTTCAGTGCCTTCGTGGATTTGGGGACTCGACTCTATTAAAGACTTTT 2290 1594 [	2771 ACAACCTAAAGCCAGAAACTTGCAGAGTATTGTGTTGGGGTTGTTTTATTTA

NO 928; 50pp; English

The invention relates to a composition comprising a plurality of cDNAs for detecting the altered expression of genes in an immunological cresponse. The invention also relates to a method of diagnosing or monitoring the treatment of an immunopathological condition in a sample, comprising obtaining nucleic acids from a sample, contacting the nucleic acids of the sample with an array comprising the plurality of cDNAs under conditions to form one or more hybridisation complexes and comparing the levels of the detected in a non-diseased sample, where an altered level of the detected hybridisation complexes with the level of hybridisation complexes correlates with the presence of an immunopathological condition. Also disclosed are an expression profile comprising a microarray and a plurality of detectable complexes and a method for identifying a plurality of polynucleotide probes. The cDNAs are useful as hybridisable array elements in a microarray for monitoring the diagnosis of an immunopathology, such as Crohn's disease, asthma, the diagnosis of an immunopathology, such as Crohn's disease, asthma, culcerative colitis, hypereosinophila, irritable bowel syndrome, carcinogenicity studies, forther teatment of the diseases. The microarray may also be used in drug discovery and development, toxicological and carcinogenicity studies, forensics or pharmacogenomics. The composition carcinogenicity studies, forensics or pharmacogenomics. The composition and any element frame a human cDNA of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained as human cDNA of the contact of the printed specification but was obtained as human contactive the printed specification but was obtained as human contactive transment of the printed specification but was obtained as human contactive transment of the printed specification but was obtained but any element of the discovery and development of the printed specification but was obtained but any or the printed specification but from USPTO at segdata.uspto.gov/sequence.html Π SEO 

Sequence 2714 BP; 596 A; 924 C; 680 G; 514 T; '0 U; 0 Other;

ö 378 138 371 258 431 551 438 498 671 311 491 251 78 CGCCCCTCCCGGGCTCATTGCAACGCTGACGGTGCCGGCAGTGGCCGTGGAGGTGGA GGAGCCGCTGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGTGACTCCCCCCCAG GGAGCCGCTGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCAGCTGCGACTCCCCCCCAG rgcagartrcgggacagcrcrcragaaacrcgcrcraaagacggaacggcacaggacrc GCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGGGGCGCCGCAGCTGGA CGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCCGCCAGTGGCCGTGGAGGTGGGA ACAGCGGCGGCATCCTCCCCCCTGGTCACAGCCCAAGCCAGGACGCCCGCGGAACCTCTC ACAGCGGCGGCATCCTCCCCCCTGGTCACAGCCCAGGACGCCCGCGGAACCTCTC GGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCGCTCACCGCCTCAG GGCTGTGCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCGCTCCG TGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAACCGCCACAGCACTC AAAGCCCACTGCGGAAGAGGGCAGCCCGGCAAGCCCGGGGCCCTGAGCCTGGACCCTTAGC AAAGCCCACTGCGGAAGAGGCCAGCCCGGCAAGCCCGGGCCCTGAGCCTGGACCTTAGC GGTGCCGGGCAGCACTGCCGGCGTTCGCCTCGCCGGACGTCCGCTCCTCCTACACTCTC GGTGCCGGGCACTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTCCTACACTCCTC Gaps DB 11; Length 2714; ó 4; Indels Query Match 70.9%; Score 2689.6; Best Local Similarity 99.9%; Pred. No. 0; Matches 2692; Conservative 0; Mismatches 132 19 79 252 139 312 199 372 432 319 379 552 439 192 259 492 දු පු 8 6 8 6 g ò qq ઠે g ð g 8 8 ò 8

499

1398 1151 1211 1098 1218 1451 1518 GAAAATGCAAAATATGTTTGCCTGGCAAATAAAACTGCCCAGTAGACAAGAGACGTCG 1751 AAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGT 1811 1031 1091 828 791 678 851 738 911 798 971 918 978 CAGCAGGAGCTCGTCGTCGTCGCGAGGGCACGTGTGCCGTGTGCGGGGACAACGCCGCCTG GCCCTTGATCAAAGTGGAGGAGGGCGGCGCCCAGCTACCATCACCATCACCACCA GCCCTTGATCAAAGTGGAGGAGGGGGGGGCCCAGCTACCATCACCATCACCACCACCACCAC 1092 CAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAGTCCCCACGTC 1099 crosececececrecarcecacceecececrecrecacceeceareaaeecece CCCGTACGGGCTGCCCCTGTGCCAAGAGGGGCGGCCCCCGCTGGCCTTCCCGCCTTCTCGGCCT CAGCAGGAGCTCGTCTGGCGAGGGCACGTGTGCCGTGTGCGGGGACAACGCCGTTG TTCAAGAGAACAGTGCA 1579 GAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGACGTCG AGCCTCCGCTGGAGAGACCCCCAGCCCCACCATTCAGCGCGCAAGATACCCTCCAGATAT GCCCTGCGTCCAAGCCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGCGCAGAC GCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGCGCAGAC cerregeadeacreagareaceceracaceaceacerecereceaecareaeraerr CGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGCG CACCCCCACCACGCCGCCCTTCCCCCGGAGGCGGGGGGGTTATGGGACGAGGCACTGCC CTCGGCGCCCGGCTGCATCGCACCCGGCCGCTGGACCCGCCGATGAAGGCGGTCCC CACGGTGGCCGGCGCGCTTTCCCACTTCAAGCCCTCGCCGCCGATCCCCC 1159 cacderecedecedececrirecederrireariteariteardecerecedecedecedecede CGCGCCCAGCCCGGCCGGCCACCACCTCGGCTACGACCGGCGGCGCTGCCGCGCT CAGCCTGCCGCTGGGAGCCGCAGCCGCGGGCAGCCAGGCCGCCGCGCTTGAGAGCCA CACGCCTCCCCTACCGCGTCCAGCCTGCGCGAGAGTCCCCAGCCTGCCGTCGCCGCC CCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCTT CCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTT 1339 1399 1459 1752 1512 1572 1632 1692 1152 1212 1332 1452 1032 1039 1272 1392 672 559 732 619 792 619 852 739 912 799 972 859 919 979 g g g g g g g g 셤 장, 음 ò ద ઠે 8 ò ò g ò 원 셤 à ò ò 셤 ठे à 8 ò g ð g 8 g 8 ò 558

Tue

```
AAT16151
AAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2118
                                                                                                                   1931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2658
                                                                                                                                                    1818
                                                                                                                                                                                                                    1878
                                                                                                                                                                                                                                                     2051
                                                                                                                                                                                                                                                                                      1938
                                                                                                                                                                                                                                                                                                                       2111
                                                                                                                                                                                                                                                                                                                                                        1998
                                                                                                                                                                                                                                                                                                                                                                                       2171
                                                                                                                                                                                                                                                                                                                                                                                                                         2058
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2771
                                                                                                                                                                                   1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGTTGTGTTTTTATATTTA 2714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCTTGCTACGCAGCAACGGATAGGTTTGGAAACCTATCATTTCCTGTCCTTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGT
                                                                   ATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGATGC
                                                                                                                                   CCTTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATACTGTCC
                                                                                                                                                                                                      CCTTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATACTGTCC
                                                                                                                                                                                                                                                     CACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCCT
                                                                                                                                                                                                                                                                        CACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAAATTCTACAACCCCT
                                                                                                                                                                                                                                                                                                                       GACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAAATTCCGGGATTTACTGATCT
                                                                                                                                                                                                                                                                                                                                        GACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATCT
                                                                                                                                                                                                                                                                                                                                                                                       CCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                            CCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTTGGAGCTGTTTGTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTITICCATICAGGICAAACACIGCIGAAGAIAAGITITGIGITICIGCAAIGGACTIGICCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCATCGACTTCAGTGCCTTCGTGGATTTGGGGAGTGGCTCGACTCTATTAAAGACTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCATCGACTTCAGTGCCTTCGTGGATTTGGGGGAGTGGCTCGACTCTATTAAAGACTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCTATGCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATCACAAGCAGTTTAAAAGACCACAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATCACAAGCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GICCTICCTIAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTCCGTACAGATAGTCTGAAAGGGAGGAGGTCGTCTGCCTTCCAAACCAAAGAGCCC
CTGCTTGCTACGCAGCAAAGGGATAGGTTTGGAAACCTATCATTTCC
                                                                                   1699
                                                                                                                                                   1759
                                                                                                                                                                                                                   1819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2419
                   1639
                                                  1812
                                                                                                                   1872
                                                                                                                                                                                                                                                     1992
                                                                                                                                                                                                                                                                                      1879
                                                                                                                                                                                                                                                                                                                       2052
                                                                                                                                                                                                                                                                                                                                                      1939
                                                                                                                                                                                                                                                                                                                                                                                       2112
                                                                                                                                                                                                                                                                                                                                                                                                                      1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2659
                                                                                                                                                                                   1932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2472
                                                                          셤
                                                                                                                8 8
                                                                                                                                                                      ⋧
                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       જે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                              ઠ
```

```
338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                         Rat nuclear receptor gene; embryo; cerebral neuron; induction; apoptogis; amplification; primer; PCR; Antisense; ribozyme; nerve; disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGCCCAAGCCAGGACGCCGGGGAACCTCTCGGCTGTGCTCTCCCATGAGTCGGGATC 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This is the nucleotide sequence of the novel rat nuclear receptor gene designated NUR88. The gene was isolated from 16 day old rat embryo cerebral neurons induced into apoptosis by amplifying the sequence from CDNA using primers AAT28371-4. Antisense nucleic acids and ribosymes targeted to the gene can be used as agents for treating cerebral nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGAGTCTCCTGCCTCCCGCCCCCCACCCTCCAGCGCCTGCTCCTCCTCCGCTCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGGT-----GCAGCGCGGCGCCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGGTGTCGCGCCGCCGCGCGCCGCAGCCGGACGCCCCTCCAGGGCTCACTTTGCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGACGGTGCCGGCAGTGGCCGTGGGAACAGCGGCGGCATCCTCCCCCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGAGTCTCCTGCCTCCCGCCCCCCACCCTCCTCCTGCTCCTCCTCCGCTCCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCCGCACACACACT - - TCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nuclear receptor expressed in apoptosis of cerebral neuron - used to design anti-sense oligo:nucleotide(s) and ribozyme(s) for treatment cerebral nerve disease etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4400 BP; 1055 A; 1239 C; 1034 G; 1072 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 4400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 2500; DB 2; Length 4
Pred. No. 0;
0; Mismatches 535; Indels
                                                                                                                                                                                                                                                                                                                            "rat nuclear receptor"
                                                                                                                    cerebral neuron nuclear receptor gene
ВР.
4400
                                                                                                                                                                                                                                                          Location/Qualifiers 700. .2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 7-10; 11pp; Japanese.
mRNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 65.9%;
Best Local Similarity 83.4%;
Matches 3131; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94JP-00164434
standard; cDNA to
                                                                                                                                                                                                                                                                                                           /*tag= a
/product=
                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1996-133421/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TERU ) TERUMO CORP
                                                                                                                                                                                                                       Rattus norvegicus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB; AAR92057
                                                                                                                                                                                                                                                                                                                                                                  JP08023980-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-JUL-1994;
                                                                              19-JUL-1996
                                                                                                                                                                                                                                                                                                                                                                                                          30-JAN-1996
AAT16151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

1418   CGGGCTGCCGCTGCCAAGAGGGCCCCCCTGCCCCTTCCCCCCCC
8 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4
191   COLOCCORAGACTCOROCACCTCCOGGAACCTCCCATCACATTCACCCCCCCCATCACTCCCCCCCC

```
Novel targeting construct for producing transgenic mouse useful as disease model and for identifying modulators of gene expression, has sequences homologous to neural orphan receptor 1 and a selectable marker.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is a coding sequence for murine Neural Orphan Receptor 1 (NOR1). NOR1, also known as Translocated in Extraskeletal Chondrosarcoma (TEC), is involved in the control of cell proliferation and apoptosis and is expressed mainly in the central nervous system. The NOR1 coding sequence was used to generate a targeting construct (I): (I) is useful for producing a transgenic mouse comprising a disruption in a NOR1 gene and exhibiting increased or enhanced pain response threshold, or impaired balance and impaired motor coordination
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Murine; NOR1; neuroleptic; Neural Orphan Receptor 1;
Translocated in Extraskeletal Chondrosarcoma; TEC; cell proliferation;
apoptosis; central nervous system; transgenic mouse;
pain response threshold; impaired balance; impaired motor coordination;
gene; ds.
                                                            90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4400 BP; 1055 A; 1239 C; 1034 G; 1072 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 4400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               535;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 6;
                                                                                                                                              TTAAGGAGACAATTTTGGAGGAGCAAGCAAATCTTTT
                                                                                                                                                                    Query Match
65.9%; Score 2500; DE
Best Local Similarity 83.4%; Pred. No. 0;
Matches 3131; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                    Murine Neural Orphan Receptor 1; NOR1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
700. .2586
/*tag= b
/product= "Murine NOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ,
                                                                                                                                                                                                                                                                                             BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 1; Fig 2; 56pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-DEC-2000; 2000US-0251794P.
24-SEP-2001; 2001US-0324614P.
04-DEC-2001; 2001US-00005169.
                                                                                                                                                                                                                                                                                             DNA; 4400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-DEC-2001; 2001WO-US047790
                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Guenther C, Allen KD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (DELT-) DELTAGEN INC
                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-608255/65.
P-PSDB; ABB98438.
                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          musculus
                                                                                                                                                                                                                                                                                                                                                                             21-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-JUN-2002
                                                                                                                                                                                                                                                                                                                                      ABN85437;
                                                              3635
                                                                                                                                              3688
                                                                                                                                                                                                                                                                                           ABN85437
                                                                                                                                                                                       3711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus
                                                                                                                                                                                                                                                                     ABN8 54374

110 ABNN

21 - C

XX

ABNN

XX

ABNN

12 21 - C

XX

ABNN

MULI

XX

MURI

XX

MURI

XX

MURI

XX

MURI

XX

MURI

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
                                                                                            g
                                                                                                                                                                                   ద
                                                                                                                                            ઠે
                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3522
                                                                                                                                                                                                                                                                                                                                                                           2811
                                                                                                                                                                                                                                                                                                                                                                                                                    2894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3463
                                                                                                                                                                                                                                                                                           2751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3051
                     CCTGAAGCTGGAGGACTTGGTGTCCCCCACCTTCTGTCATCGACAAGCTCTTCCTTGATAC
                                                                                                       CCTGCCTTTCTGAGCAGGGAAGCCTGAGCAGAGAGCTACTTGCTCTGCTGGCACTGGTC
                                                                                                                                                                                                                                               AAAGCAGCTCCTGTAGAAAGCAAAGACTTTCTTTTTTTCTGGCTCTTTTCTTACAACC
                                                                                                                                                                                                                                                                                                                                                                                                                  AGAACCCTTCGGAGGTATGGCCCTTCTAAGACTTTCGGGCCACTCTTGATGGAATTCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATTGCATATGACTGTGTTCGCTGTGTTTGTCAACCTGGACAGAGTTCTCTAAACCTT
  CCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCTGGACAC
                                                                                  CCTACCTTTCTAATCAGGAGCAG-TGGAGCAGTGAGCTGCCTCCTCCTCTCTAGCACCTGCT
                                                                                                                                                               ATTAAGTGAGCAAAAGGATGGGTTTGAACACCT-GCCCTCTATCCTTCCTCCAGGGGAA
                                                                                                                                                                                                                                                                                  AAAGCAGCTCCCATAGAAAGCAAAGACTTT-TTTTTTTCTGGCACCTTTCCTTACAACC
                                                                                                                                                                                                                                                                                                                                    TAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGGTTGTGTTTTATATTTAGGCATTGGG
                                                                                                                                                                                                                                                                                                                                                                  TAAAGCCAGAAACCTTGCAGAGTATTGTGTTGGGGTTGTGTTTTATATTTTAGGCTTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGTGGGCGGGGGGGGGTAAATAGTTCATGAGGCTTTTCTAAGAAATTGCTGACGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACTITIGGACAAIGCIAICCCAGCAG-----GAAAAAAAAGGAIAAIAIAACIGIIII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cacititicgangangcitarcccagcagnggggggggggagaaggananaacrgitrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAA - - CTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGGGTTG-TTCGCCAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAAATATGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAA------CTTCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAATTTCCTTCTTCCTTTATTTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACATGCCAAAAACAATAATGCCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTTAGCAAAATGATAATGGCTATTCGCTTCCACATACAAGTGCAAATTTTTAGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTCTTACTAAGTCTTGTTTATTAACTCTCTTTATTCTATATGGAAATAAAAAGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTCATGTTATCAAACGGCGTGCTCATTTTCCTAGCTCACCCTTGGTCCACCTGCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCC------TGCCCTGACTGTCCAGCTATCCTGAAAGTGGATTATAAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3411 ACCCTCCCTCAACCATGACTATCCAGATGTCCTGAATGGGGATCAGGTTATAAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATTACATGTAACTGTTTTGGTTGTGT-TCTATCAACCCCACCAGAGTTCCCTAAACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCAGTTATAGTAACTGACTGGTATATTCATTCAGAAGC-----GCCATAAGTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cirragirgraecaágirccigarrecicarreagaágeceaaggagearraggigaer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACT-GGTCATACAGGGTA
                                                                                                                                                                                                                                               2717
                                                                                                                                                                                                                                                                                         2693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3576
2538
                                                                                  2598
                                                                                                                         2574
                                                                                                                                                                  2657
                                                                                                                                                                                                                                                                                                                                  2777
                                                                                                                                                                                                                                                                                                                                                                        2752
                                                                                                                                                                                                                                                                                                                                                                                                                    2837
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3171
                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8 8
                                                                           ò
                                                                                                            g
                                                                                                                                                             ò
                                                                                                                                                                                            요
                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                              음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          원
```

22;

Gaps

1156   C.G.C.G.C.G.C.G.C.G.C.G.C.G.C.G.C.G.C.G	1938   CCGAGCTTTAACAGACTCCAGAGATCTTGATTATTCCAGATACTGTCCCACTGA   1997   1914   CCGAGCTTTAACAGACGCCAGAGACCTTGATTATCCAGATACTGTCCCACCGA   1973   1998   CCGAGCTTTAACAGACGCCAGAGACCTTGATTCTACAACCTCCTGACACGC   1973   1974   CCAGGCTGCTGCAGACGCTGAGCATGCTTCTACAACCTCCTGACAGC   2033   2058   CTCCATTGATGTCCCAGAAGATCTCACAACCTTCTGACGGC   2033   2058   CTCCATTGATGTCCCAGAAGATTCTACAACCTTCTGACGGC   2033   2058   CTCCATTGATGTCCCAGAAGATTCTACAACCTTCTGACGGC   2033   2058   CTCCATTGATGTCCCAGAAGATCCCCGGATTTACTGATGTCCCCCAA   2117   2034   CTCCATTGATGTCTTATTATTAGAGATTTTTTGAGCTTTTTTTT
8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6	8 8 8 8 8 8 8
	· · · · · · · · · · · · · · · · · · ·
10	CACGCTACAGCTACCAGCTCCTGCCAGCATCGTGGAGGCTACTCGAGGGTACTCGAGGGTACTCGAGGGTACTCGAGGGTACTCGTGGAGGGCTACTCGAGGGTACTCGTGGAGGGCTACTCGAGGGTACTCGAGGGCTACTCGAGGGTACTCGAGGGCTACTCGAGGGTACTCAGGGGGGCCCCCAGGCTACTCGAGGGTACTTCAGGAGGGCTACTCAGGGTACCTTCAGGGGCCCCCAGGCTACCAGGCTACTAGGAGGCCTACTCAGGGCTACCAGGCTACCAGGCTACCAATGCAGGCTTCTAGGGCTACCAGGCCTTCTAGGGCTACCATCACGATCAGGCTTTCTAAAGTGGGGCGCCGCTTTTCTAAAGTGGGCGCCGCCTTTTCTAAAGTGGCGCCACCACCACCACCACCACCACCACCACCACCACCA

0	
15.4 TATURGENCEARCREGARITHS   1.0	3174 GACAIGGCAAACATAATGGCTGTTIGCTTCCATAACAAGTGCAATTTTTTAAAGTGC 3233 3171 GACTTAGCAAAATGATAATGGCTATTCGCTTCCACAAGTGCCAATTTTTTAGAGTGC 3230 3234 TGTCTTACTAACTAAGTTTTTTAAACTCTCCTTTATTCTATATGGAAATAAAAAAGAGGGC 3230 3231 TGTCTTACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAAAGAGGGC 3290 3231 TGTCTTACTAAGTCTTGTTTTTGTGAACTCTCCCTCATTTTATATGAAAATAAGAAGGAGGC 3290
B 4 5 B 5 B 5 B 5 B 5 B 5 B 5 B 5 B 5 B	8686

THIS PAGE BLANK (USPIO)

```
Sequence 3789, Ap Sequence 905, App Sequence 928, App Sequence 12647, A Sequence 15531, A Sequence 828, App Sequence 4467, Ap Sequence 4392, Ap Sequence 58, Appl Sequence 58, Appl Sequence 135237, Sequence 135237, Sequence 135237,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35441, A
135227,
35440, A
                                                                                                                                                                                              March 21, 2005, 11:57:11 ; Search time 599 Seconds (without alignments) 10363.996 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                               1 ataaatgacgtgccgagaga......gtgtgagtactaggaaggat 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2405568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PcTUS_COMB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-3789
US-09-949-016-905
US-09-949-016-12647
US-09-949-016-12647
US-09-949-016-12647
US-09-949-016-12631
US-09-949-016-828
US-09-949-016-4467
US-09-949-016-328
US-09-949-016-35444
US-09-949-016-35441
US-09-349-016-35441
US-09-349-016-35440
US-09-349-016-35440
US-09-349-016-35440
US-09-349-016-35440
US-09-349-016-35440
US-09-349-016-35440
US-09-349-016-35440
US-09-349-016-35440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1202784 seqs, 818138359 residues
                                                                                                                                     nucleic search, using sw model.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0% Maximum Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                       US-10-608-863-1
3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match 1
                                                                                                                                                                                                                                                                                                                                          Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3779.4
3722
2689.6
1420.4
1420.4
497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   486.4
3363.8
3315.6
315.6
315.6
315.6
315.6
1174.6
11109.6
1109.6
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
1109.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      497
                                                                                                                                     ı
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB e
Maximum DB e
                                                                                                                                 OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                     Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Result
```

Sequence 548, App Sequence 1156, App Sequence 1, Appli Sequence 1, Appli Sequence 5, Appli Sequence 5, Appli Sequence 17, Appli Sequence 17, Appli Sequence 16209, A Sequence 16209, A Sequence 15, Appli Sequence 7, Appli Sequence 1, Appli	ASSOCIATED OF DETECTION AND USES THEREOF	; Length 3797; Indels 3; Gaps 1;	CAGCCGGGAGAGCGGAGTCTCCTGCCT 60	CCGGCCCCCACCCTCCAGCTCCTGCTCCTCCGCTCCCCATACACAGAGGCGCTCA 120	ACACAGGCTCCGCACACAC 180	CCTTGCCGGTGCAGCGCGGCG 240	CGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGCCG 300	36
US-09-949-016-548 US-09-132-619-1 US-09-132-619-1 US-09-132-619-1 US-09-132-619-1 US-09-132-619-1 US-09-132-619-5 US-09-132-619-5 US-09-132-619-5 US-09-949-016-12570 US-09-949-016-12570 US-09-949-016-12570 US-09-949-016-12570 US-09-949-016-16210 US-08-352-800-3 US-08-352-800-3 US-08-316-592A-1 US-08-216-592A-1	RESULT 1  US-09-949-016-3789  Sequence 3789, Application US/09949016  Patent No. 6812339  GENERAL INFORMATION: TITLE OF INVENTION: TOURENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14  PRIOR PILICATION NUMBER: 60/241,755 PRIOR PELICATION NUMBER: 60/231,498  PRIOR PELICATION NUMBER: 60/231,498  PRIOR PILING DATE: 2000-10-03	Score 3779.4; DB 4 Pred. No. 0; 0; Mismatches 1;	gagcgagcgaacgcgcagccg 	AGCTCCTGCTCCTCCTCCGCT 	ccectccctcactcgcacacacacacacacacgcgcgcacacaggctccgcacacaca	TTGGCTCTCCCGGGGGCTCACACCCCTTTGCCCTGAGCCCTTGCCGGTG( 	CCCGGGCTCACTTTGCAACGC 	CGGCATCCTCCCCCTGGTCA
4 4 5 2 9 2 4 8 8 2 9 9 2 4 8 8 9 9 9 2 4 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	19789  199, Application US/(RAL239)  CRATION: VENTER, J. Craig et NYENTION: WITH HUM ENCE: CLOO1307  PLICATION NUMBER: US LING DATE: 2000-10-20 IGATION NUMBER: 60/20 IGATION NU	h Similarity 99.9%; 93; Conservative	ATAAATGACGTGCCGAGAGAGCGAGCGAACGCGG	CCCGCCCCCACCCTTCA	CACCGCTCCCTCACTCG(	Trescrereceseser(	CCGCAGCTGGACGCCCCT(	TGGAGGTGGGAACAGCGG
2 4 4 3 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	JLT 1  39-949-016- aquence 378 attent No. 6 ENERAL INFC APPLICANT: TITLE OF IN FILLE REFERSE CURRENT APP CURRENT APPLIAN PRIOR FILIN PRIOR FILIN PRIOR FILIN PRIOR FILIN PRIOR FILIN FILIN APPLIA PRIOR FILIN FILIN APPLIA FILIN APPLI	Query Match Best Local S Matches 3793		61	121	181	241	0
<i>.</i>	RESULT US-09-0 Seque RESULT RESULT TITT TITT TITT FILLI PRICE PRICE SEQUE SEQUE SEQUE TITT TITT TITT TITT PRICE RESULT TITT TITT TITT RESULT R	Que Bes Mat	è 8	<i>ò</i> 8	% <del>8</del>	Q	<b>상</b> 옵	δ

3, Appli 1, Appli

Sequence Sequence Sequence

Sequence Sequence Sequence

131  GCTGCCGCCTCAGCCTCCCCCTGGGAGCCCCGCGGGCCCCCTGGCCTTCCCTGCTGCCTGGGGGCCCCCC
8       5       8       8
11

Qy         3601 CATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTTTA 3660           bb         3601 CATGCAAATCAGCAGGACTGGTCATACAGGGTAAGCACCAGGACAATAAGGATTTTTA 3660           Qy         3661 TAGATATAATTTTTGTTAATGGTTAAGGAGACAATTTTGGAGAGCAAACAAA	RESULT 2 US-09-949-016-905 IS-09-949-016-905 Sequence 905, Application US/09949016 Sequence 905, Application US/09949016 Setent No. 6812339 SETILE OF INVENTION: OLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF STILE REFERENCE: CLO01307 CURRENT PELING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755 PRIOR APPLICATION NUMBER: 60/241,756 PRIOR APPLICATION NUMBER: 60/241,768 PRIOR PLING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/231,768	PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION UNDERS: 60/2 PRIOR FILING DATE: 2000-09-08 NUMBER OF SEQ ID NOS: 207012 SOFTWARE: PastSEQ for Windows SOFTWARE: PastSEQ for Windows LENGTH: 3802 TYPE: DNA ORGANISM: Human S-09-949-016-905	Similarity 99.4%; Fred. No. 0; 9; Conservative 0; Mismatches 15; araaardacGracGaGaGaGaGaGCGAGCGAGCGAGCGAGCGAGCGAGCGAGC	Qy         121 CACCGGTTCCCTCACTGGACACACAGGGGGCACACAGGCTCGGCACACAC         178           Db         121 CACCGGTTCCCTCACTGGACACACAGGCTCGGACACACAC
2521 CTCCAGGGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGAC 2580 2521 CTCCAGGGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATTGAC 2580 2521 CTCCAGGCGCATCTTCTACTGAAGCTGGAAGCTGCTCCCACCTTCCATTGAC 2580 2581 AAGCTCTTCCTGGACACCCTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCTCC 2640 2581 AAGCTCTTCCTGGACACCCTTCTATCAGAGGAGTGGAGCAGTGAGCTGCTCC 2640 2641 TCTCCTAGCACCTGCTTGCTACCTTCTAATCAGGAGATGGAGTTGGAAACCTATCTTTCCTG 2700 2641 TCTCCTAGCACCTGCTTGCTAGCAAAGGAAAGGATTGGAAACCTATCATTTCTTGC 2700 2641 TCTCCTTAGAGGAAAAGCAGCTCCTGTAGAAAGCAAAGACTTTCTTT	2761 TCTTTCCTTACAACCTAAAGCCAGAAAACTTGCAGGATTGTGTTGGGGTTGTGTTTT 2820 2761 TCTTTTCCTTACAACCTAAAGCCAGAAAACTTGCAGAGTTTGTGTTGGGGTTGTGTTTT 2820 2821 ATATTTAGGCATTGGGGATGGGGTGGGAGGGGTTATAGTTCATGAGGGTTTTCTAAGA 2880 2821 ATATTTAGGCATTGGGGATGGGGTGGGGGGTTATAGTTCATGAGGGTTTTCTAAGA 2880 2821 ATATTTAGGCATTGGGGATGGGGGGGGGTTATAGTTCATGAGGGTTTTCTAAGA 2880 2821 ATATTTAGGCATTTGGACAATGGTATCCCAGCAGGAAAAAAAGGATAATAA 2940 2881 AATTGCTAACAAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAAAA	2941 ACTGTTTTAAAACTGTTTCTGGGGAATCCAATTATAGTTGTTTTTAAAAACAAGA 3000 3001 ACAGCCAAGGGTTGTTCGCCAGGGTAGGATCTTTAAAAGATTGAATATT 3060 3001 ACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTCTTAAAGATTGGTCCCTTGAAAATAT 3060 3001 ACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTCTTAAAGATTGGTCCCTTTAAAATAT 3060 3061 GCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAACTTCCTTTTAATTTC 3120 3061 GCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAACTTCCTTTAATTTC 3120 3121 CTTCTCCTTAATTTAACAAATGTGGTGCAAACAAGAACAAACA	CTICTTCCTTTATTTTACAAATGGGAATGGGGATTACCTACAAATCAGACATGG CAAAACAATAATGGCTGCTTCCATAAACAAGGGAATTTTTTAAAGTGCTGTCTTA [	114

1499   CGCCTCTCGGCCTCCCCTACCGCGTCCAGCCTGCTGGGGGAGAGTCCCAGCC   1518	1739   ACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAA   1798	1919   GCATGATGATGCCCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATT   1978	1 TCTACAACCTCCTGACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAGGATTCCGG 2  GATTTACTGATCTCCCCCAAAGAACAACAACATTACTTATTGAATCAGCTTTTTGGAGC 2  [	2219 ATGANCTIGTCCTGCATCGACTTCGTGCATTTGGGGGTGGCTCTT 2278	2341 ¹ĠTĊAĠĊĀĊŦĠĠĠĀĠĀĠĀĠĀĀĠĠĀŦĠĠĠŦŦĀĀĀĠĀĀĠĠĀĠĠĀĠĠĀĠ 2400 2399 AGCTATGCAACAAGATCACAAGCAGTTTAAAAGACACCAGAGTAAGGĀĠĠĠĀĠĠĀĠŢĠĀĀĠ 2401 AGCTATGCAACAAGATCTACAGGGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGG 2458 2459 AGCCCACCGAGTCCACAGGTCTGGGTGCCCTGGTAGAACTGAGGAACATCTGCACCTGG 2460 2459 AGCCCACCGAGTCCAAGGTCCTGGTTGCCCTGGTAGAACTGAGGAAGATCTGCACCTGG 2518 2461 AACCCAACGACTCTACACGGTGCTGTAGAACTGAGGAAGATCTGCACCTGG 2520 2519 GCCTCCAGGCATTCTTCTACCTGAAGAGTGAAGAAGATCTCATCATTG 2578
8 8 8 8 8 8 8	6 6 6 6	8 8 8 8 8	4 6 6 6	8 8 8 8 8	8 8 8 8 8 8 8
CTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGT 47.	601 CTGGACCCTTAGCGGCCGGCCAGCCCGCGGCGCTTCGCCGGACGTCCGCTC 660 659 CTCCTACACTCCAGCCTCGCTGGAGAGACCCCAGCCCAG	781 ATGCGGCGCAGACATACAGCTCGGAATACACCACGGAGATCATGAACCCCGACTACACCA 840 839 AGCTGACCATGGACCTTGGCAGCACTGAGATCACGCTACAGCCACCACCACGCCA 840	ACCAAATGCAGCGGCCTTGATCAAAGTGGAGGGGGGGGGG	AGTCCCCACCGTCCACCCCACCACGCCGGCCTTCCCCCCGCAGGCGGGGGGCGTT	

1319   GOGGCCCAGGCGGGCCACCACCTCGGCTACACCCGGCGGCTGCGCGCTGCGCCCT   1518     1279   CAGCTGCCGGTGGGGCCCCCGGGCGGCCCCCCGGCCGCCCCCTGCGCCCCCT   1318     1320   CAGCTGCCGGTGGGCCCCCGGGCCGCCCCCGGCCCCCCCC
8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6
13   COCCCTCCCCCCCCTCCCTCACACCCCCCCCCCCCCCCC

```
13987 TACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCTCCTCCTCTAGCACCTGCTTGC 44046
                                                                               2720 GCAGCTCCTGTAGAAAGCAAAGACTTTCTTTTTTTTCTGGCTCTTTTCTTGCTAAACCTAAA4107 GCAGCTCCTGTAGAAAGCAAAGACTTTCTTTTTTTTTTGGCTCTTTTTCTTACAACCTAA
                                                                                                                                                                                                                                                                                                                                                                                  CAGGGTAGGATGTCTTAAAGATTGGTCCCTTGAAAATATGCTTCCTGTATCAAAGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCTTCCATAAACAAGTGCAATTTTTAAAGTGCTGTCTTACTAAGTCTTGTTTATTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTATTGGTTAAGGAGACAATTTTGGAGAGCAAGCAAG---TCTTTTTAAAAAATAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            44347 TGGGGAATCCAATTATAAATGCTTTGTATTTAAAAACAAGAACAGCCAAGGGTTGTTGGC
                                                                                                                                                                                                                                                                                                                                                                  3020 CAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAAATATGCTTCCTGTATCAAAGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                           CGTATGTGGTGCAAACAAGGCAGAAACTTCCTTTTAATTTCCTTCTTCCTTTATTTTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                          3140 AAATGGTGAAAGATGGAGGATTACCTACAAATCAGACATGGCAAAAAAGGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44647 TCTCCTTTATTCTATATGGAATAAAAGGAGGCAGTCATGTTAGCAAATGACACGTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3320 TATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCGATCCCTTCTGAGGTATGGCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3440 GAAAGTGGATCAGATTATAAACTGGATTACATGTAACTGTTTTGGTTGTGTTCTATCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAAGTGGATCAGATTATAAACTGGATTACATGTAACTGTTTTGGTTGTTCTATCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3560 AGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3620 TGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTTTTATAGATATAATTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5007 TGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTTATATAGATATTAAATTTTAT
                                                                                                                                       AGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTTTTATATTTTAGGCATTGGGGGA
                                                                                                                                                                 44167 AGCCAGAAAACTTGCAGAGTATTGTGTTTGGGGTTGTGTTTTTATATTTTAGGCATTGGGGGA
                                                                                                                                                                                                                         14227 TGGGGTGGGAGGGGGTTATAGTTCATGAGGGTTTTCTAAGAAATTGCTAACAAAGCACTT
                                                                                                                                                                                                                                                     2900 TTGGACAATGCTATCCCAGCAGGAAAAAAAGGATAATATAACTGTTTTAAAACTCTTTC
                                                                                                                                                                                                                                                                                                           TGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACAGCCAAGGGTTGTTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTCCTTTATTCTATATGGAATAAAAGGAGGCAGTCATGTTAGCAAATGACACGTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44947
                                                                                                                                       2780
                                                                                                                                                                                             2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3680
                           2660
                                                                                                                                                                                                                                                                                                           2960
                                                                                                                                                                                                                                                                                                                                                                                                                           3080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44887
                                                                                                                                                                                                                                                                                                                                                                                               44407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                      g
                                                                                                                                                          g
                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                            8 ጵ
                                                                                                                           ે
                                                                                                                                                                                    ∂
                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
CURRENT FILING DATE: 2000-04-14
FRIOR APPLICATION NUMBER: 60/241,755
FRIOR APPLICATION NUMBER: 60/241,755
FRIOR APPLICATION NUMBER: 60/231,498
FRIOR PILING DATE: 2000-10-03
FRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 12647
LENGTH: 47184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            43806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          43926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    43866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2599
                                                                                            2478
                                                                                                                                                                                                          2598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2659
                                                                   2591
                                                                                                                        2651
                                                                                                                                                    2538
                                                                                                                                                                                2711
                                                                                                                                                                                                                                        2771
                                                                                                                                                                                                                                                     CAACCTAAAGCCAGAAACTTGCAGAGTATTGTGTTTGGGGTTGTGTTTTATATTTA 2827
                                                                                                                                                                                               CTGCTTGCTACGCAGCAAGGGATAGGTTTGGAAACCTATCATTTCCTGTCCTTAA
           CAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCAT
                           CAAGGTCCTGGGTGCCCTGGTAGAACTGAGAAGATCTGCACCCTGGGCTCCAGCGCAT
                                                                   CTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCT
                                                                                  CTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATTGACAAGCTCTTCCT
                                                                                                                        GGACACCCTACCTTTCTAATCAGGAGCAGTGGAGCAGTGGAGCTGCCTCCTCTTCTAGCAC
                                                                                                                                                                                2360 CAGAAAGACATGGGTTAAAAGAACCAAAGAGTCGAAGAGGTTATGCAACAAGATCACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGTTTAAAAAACCACCACAGAGTAAAGGACAGGCTCTGGAGCCCACCGAGTCCAAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCTGGGCCTCCAGCGCATCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATGACAAGCTCTTCCTGGACACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCTGGACACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCTCCTCTCTAGCACCTGCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 4; Length 47184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
37.4%; Score 1420.4;
Best Local Similarity 99.7%; Pred. No. 0;
Matches 1434; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                           ; Sequence 12647, Application US/09949016; Patent No. 6812339; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Human
US-09-949-016-12647
                                                                                                                                                                                                                                                                                                                                                                                -09-949-016-12647
                                                                                                                                                                                                                                                               2599
                                                                                                                                                                                                                                                                                           2772
                                                                                                                                                                                                                                                                                                                         2659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13927
                                      2359
                                                                2532
                                                                                            2419
                                                                                                                        2592
                                                                                                                                                 2479
                                                                                                                                                                              2652
                                                                                                                                                                                                          2539
                                                                                                                                                                                                                                      2712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2600
           2472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                        В
                              셤
                                                       જે
                                                                                   g
                                                                                                                       ઠે
                                                                                                                                           g
                                                                                                                                                                    ò
                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

44526

3139

44286

44346

3019

44406

3079

44646

3259

44766

3379

44826

3499

3439

44946

45006

ò 셤

```
44766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    45067 GrratrgGrraAGGAGACAArtrrGGAGGAAGCAAArcrrcrrrrraAAAAAAAAAA 45126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44287 TTGGACAATGCTATCCCAGCAGAAAAAAAAGGATAATATAAACTGTTTTAAAACTCTTTC 44346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAAGTGGATCAGATTATAAACTGGATTACATGTAACTGTTTTTGGTTGTGTTCTATCAAC 3499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTATTGGTTAAGGAGACAATTTTGGAGGAGCAAGCAAA---TCTTTTAAAAAATAGTAT 3736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAAGTGGATCAGATTATAAACTGGATTACATGTAACTGTTTTGGTTGTTTCTATCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    46647 TCTCCTTTATTCTATATGGAAATAAAAGGAGGAGCAGTCATGTTAGCAAATGACACGTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3560 AGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAAC
                                                                   CAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAAATATGCTTCCTGTATCAAAGGTA
                                                                                                                                                                                                                                                 CGTATGTGGGGAACAAGGCAGAAACTTCCTTTTAATTTCCTTTTCTTCTTTTTTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                            TCTCCTTTATTCTATATGGAAATAAAAAGGAGCAGTCATGTTAGCAAATGACACGTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGTCATACAGGGTACACCAGGGACAATAAGGATTTTTATAGATATAATTTAATTTTT

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THE DETECTION OF BLOOD CELL GENE
                                                                                                                                 CAGGGTAGGATGTCTTAAAGATTGGTCCCTTGAAAATATGCTTCCTGTATCAAAGGTA
                                                                                                                                                                                                                         CGIATGIGGIGCAAACAAGGCAGAAACIICCIIIIAAITICCIICIICCIIIAITIAAC
                                                                                                                                                                                                                                                                                                               AAATGGTGAAAGATGGAGGATTACCTACAAATCAGACATGGCAAAACAATAATGGCTGTT
                                                                                                                                                                                                                                                                                                                                      TGCTTCCATAAACAAGTGCAATTTTTTAAAGTGCTGTCTTACTAAGTCTTGTTTATTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATCCCTAGCAGAGGCTGTGTTCAGCTTCCCTGTCGATCCCTTCTGAGGTATGGCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Sequence 1400, Application US/09023655 |
| Patent No. 6607879 |
| GENERAL INPOWENTION: |
| APPLICANT: Cocks, Benjamin G. APPLICANT: Cusan G. Stuart |
| APPLICANT: Greffrey J. Selhamer |
| TITLE OF INVENTION: COMPOSITION FOR THE DETT |
| TITLE OF INVENTION: EXPRESSION |
| NUMBER OF SEQUENCES: 1508 |
| CORRESPONDENCE ADDRESS: 1508 |
| CORRESPONDENCE ADDRESS: STREET: STREE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
US-09-023-655-1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44887
                                                                                        44347
                                                                                                                                                                                                                                                                                                                                                                                                                                                 44587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            45007
                                              2960
                                                                                                                                      3020
                                                                                                                                                                                44407
                                                                                                                                                                                                                         3080
                                                                                                                                                                                                                                                                     44467
                                                                                                                                                                                                                                                                                                                 3140
                                                                                                                                                                                                                                                                                                                                                                                                          3200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3737
                                                                                                                                                                                                                                                                                                                                                             44527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                     8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                  8
                                                                              유
상
유
                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                         Sequence 15531, Application US/09949016

Sequence 15531, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR PLING DATE: 2000-10-20

PRIOR PLING DATE: 2000-10-03

PRIOR PLING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SEQ ID NO 15531

LENGTH: 47184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 44106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          44226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       43866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2419
                                                                     45184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TIGGACAATGCTATCCCAGCAGGAAAAAAAGGATAATATAACTGTTTTAAAACTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2360 CAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCTATGCAACAAGATCACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGTCCAAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGTTTAAAAGACCACCAGCAGTAAGGGACAGGCTCTGGAGCCCACCGAGTCCAAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGGTGCCTGGTAGAACTGAGAAGATCTGCACCCTGGGCCTCCAGGGCATCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCTGGACACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13927 TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCTGGACACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCTCCTCCTAGCACCTGCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACCTTTCTAATCAGGAGCAGTGGAGCTGACTGCCTCCTCCTAGCACCTGCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCCAGAAAACTTGCAGAGTATTGTGTTTGGGGGTTGTGTTTTATATTTAGGCATTGGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTTTTATATTTAGGCATTGGGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGTGGGAGGGGGTTATAGTTCATGAGGGTTTTCTAAGAAATTGCTAACAAAGCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                resecreseaseserraracarreareasesrrireraasaarrecraacaaaserr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                           45127 GAATCTGAATACTAGAAAAGATTTAAGAAATAGTATGAGTGTGTGAGTACTAGGAATAGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 47184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>D</u>B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1420.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 99.7%;
Matches 1434; Conservative (
                                                                                                                                        RESULT 5
US-09-949-016-15531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: HUMANI
US-09-949-016-15531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM: H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          43807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             43987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4227
                           3737
```

g

엄

ò

ò

g ò 셤 ò g å å ò a õ 엄 ò ద

```
1060 ------TGCCCTCACCGCGTCGCGGGGCTCCCCTCCAACGAGGGCTGTGCGCT 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCAGTAGACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCA 1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCCTTCCAAACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCCTCTC 1909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1456 CCAGCCTGGACTATTCCAGGTTCCAGGCGAACCCTGACTATCAAATGAGTGGAGATGACA 1515
                                                              1310 AGCCCTCGCCGCCGCATCCCCCCGCGCCCCAGCCCGGCGGCGGCCACCACCTCGGCTACG 1369
                                                                                                                                                                                                                                                                                                                      1370 ACCCGACGGCCGCTGCCGCGCTCAGCCTGCCGCTGGGAGCCGCAGCCGCCGCGGGGGAGCC 1429
                                                                                                                                                                                                                                                                                                                                                                                                                                               1430 AGGCCGCCGCCGCCTTGAGAGCCACCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCGGC 1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       946 Accaceroeregacedeacerroecrerececaacecearrecearececereca 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1490 TGGCCTTCCCGCCTCTCGGCCTCACGCCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGA 1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1351 TGCCCTCGAAACCGAAGAGCCCA------CAGGAGCCCTCTCCCCCTTCGC 1395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1396 ccccograndraterateracicitateras de contra de la contra de la contra de 1455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1610 TGTGCGGGGACAACGCCGCCTGCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1790 GTGTTGGAATGGTAAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGAGAGGTCGTC
                                                                                                               CTACGCACATGATCGAGGAGAAAACGCCAGTCTCCCGCCTCTCCCTCTTCTCCTTTA
                                                                                                                                                                                                                                                                                                                                                                              886 GCCAGATGCGCTTCGACGGGCCCTGCACGTCCCCATGAACCCGGAGCCCGGCGGCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTGTGGGGACAACGCGGCCTGCCAACACTACGGCGTGCGCCCCTGTGAGGCCTGCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCTTTTTCAAGAGAACAGTGCAGAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTTCTTTAAGCGCACAGTGCAAAAAAGCAAAAATGCAAAAATACGTGTGTTTAGCAAATAAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1231 GCCCAGTGGACAAGCGTCGCCGGAATCGCTGTCAGTACTGCCGATTTCAGAAGTGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGATCTTGATTATTCCAGATACTGTCC---CACTGACCAGGCTGCTGCAGGCACAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGCAGAAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGAAGATCAGACATTACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1576 GGGCAGAGAAGATCCCTGGCTTCGCAGACCTGCCCAAAGCCGACCAAGACCTGCTTTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2141 AATCAGCCTTTTTGGAGCTGTTTGTCCTCAGACTTTCCATCAGGTCAAACACTGCTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1696 GTAAACTCATCTTTGCAATGGGGTGGTCTTGCACAGGTTGCAATGCGTTCGTGGCTTTG
   739 CCATGTGGGACGA-----CCCGGGATCTCTCCACAACTTCCACCAGAACTACGTGGCCA
                                                                                                                                                                                                                                                     853 AGCAATCGCCCCCTGGCACCCCGGTGTCTAG---------TT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1550 GTCCCAGCCTGCCGTCGCCGCCCAGCAGCTCGTCGTCTGGCGAGGGCACGTGTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCAATCTGCATGATGACCCTTGTCCGAGCTTTAACAGACTCAACACC-----CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGAGCATGTGCAACAATTCTACAACCTCCTGACAGCCTCCATTGATGTATCCAGAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1516 CCCAGCATATCCAGCAATTCTATGATCTCCTGACTGGCTCCATGGAGATCATCCGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1636 AATCAGCTTTCTTAGAACTGTTTGTCCTTCGATTAGCATACAGGTCCAACCCAGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2201 ATAAGTTIGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTGCCTTCGTGGATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1006 resecrices descrises de la resecrica de l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1730 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2021
                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                           셤
                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1010 ACCATCACCATCACCACCACCACCACCACCACCACCATCACCAGCAGCAGCAGCATCAGC 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTTATGGGACGACGCCTCGCCCTCGGCCCCCGGCTCGCACCCCGGCCCGCTGCTGG 1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTACAAGCCCTCCTCGCCCCGACGCCCACCCCCGGGCTTCCAGGTGCAGCACACGCC 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTCCCCAGCTTCAGTACCTTTATGGACAACTACGCCACAGGCTACGACGTCAAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTGCTTGTACCAAATGCCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          722 CTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310 crgaagccargccrrgrgrrcaggcgcagrargggrccrcgccrcaaggagccag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGCGCAGACATACAGCTC------GGAATACACCCACGGAGATCATGAACCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          crrcrcagagcracacrrrcaggagaaracacrcccarrrcraacrccag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTACACCAAGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCTGCCCAGCATCAGTACCTTCGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1070 AGCCATCCATTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------creacagarcarccccacrccccrrccccrrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 497; DB 4; Length 3427;
Pred. No. 3.7e-105;
0; Mismatches 640; Indels 144;
                                                                                                                                                                                                                                           SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/023,655
FILING DATE: HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFENCE/DOCKET NUMBER: PA-0001 US
TELEPHONE: (650) 855-0555
TELEPHONE: (650) 855-0555
INFORMATION FOR SEQ ID NO: 1400:
SEQUENCE CHARACTERISTICS:
LENGTH: 3427 base pairs
TYPE: nucleic acid
                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM FC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13.1%;
59.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: single
                             CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; CLONE: 9415822
US-09-023-655-1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IMMEDIATE SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simi
Matches 1135; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     646
```

셤 ઠે g ઠે 셤 ò a 8 g ઠે 셤 ઠે g ò 셤

2080

ద

원 ò 8 8 ò 셤 ઠે g

```
1395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cccccraacrcraarcacrccrcarcacccarcrcarcrcarcrcarccacrara 1455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGATCTTGATTATTCCAGATACTGTC---CACTGACCAGGCTGCTGCAGGCACAGATG 2020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1790 GTGTTGGAATGGTAAAAAAAGTTGTCGGTACAGATAGTCTGAAAGGGAGGAAGAGGTCGTC 1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         deceadradacardacadadardardardardacadarricadadardacida 1290
                                                                                                                                                                                                                                                                                                    1429
                                                                                                                                                                                                                                                                                                                                                        AGGCCGCCGCCTTGAGAGCCACCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCCC 1489
                                                                                  1189
                                                                                                                                                                                                                                               AGCCCTCGCCGCCATCCCCCCGCCCCAGCCCGGCGGCCACCACCTCGGCTACG 1369
                                                                                                                                                                                                                                                                                                                                945
                                                                                                                                                                792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGCAGAAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGAGCATGTGCAACAATTCTACAACCTCCTGACAGCCTCCATTGATGTATCCAGAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCCTTCCAAACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTGCGGGGGACAACGCCGCCTGCCAGCACTACGGCGAAACCTGCGAGGGCTGCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCAATCTGCATGATGATGCCCTTGTCCGAGCTTTAACAGACTCAACAGC-----CA
                                                                                                                                                                                                                                                                                                                                                                                                              TGGCCTTCCCGGCCTCTCACGCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTTTTTCAAGAACAGTGCAGAAAATGCAAAATTGTTTGCCTGGCAAATAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCAGTAGACAAAGACGTCGAAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        accacereereaceeccacerrecrereccaacecarreccaaececeecea
                                                                                                                                                                                                                                                                                                                                                                                                                               1550 Greccageeracegeegeegecageagageregregregeegaggecacgregeeg
                                                                                ACTICAAGCAGTCCCCACCGCCCCACCACGCCGGCCTTCCCCCCGCAGGCGGGG
                                                                                                                                                    1250 ACCGGCGAIGAAGGGGGTCCCCACGGTGGCCGGCGCGCGCTTCCCGCTTCCACTTCA
                                                                                                                                                                                                                    craciccacarcandeageagagaaaacaccagacrcccogccrcccccrcrccrrra
                                                                                                                                                                                                                                                                                                    1370 ACCCGACGGCCGCTGCCGCTCAGCCTGCGGAGCGGGAGCCGCCGCCGCGGCAGCC
                                                                                                                                                                                                                                                                                                                             886 eccadardesecrredadeseceredaeseceredesaseces de eccadardese es escadadesecendos es escadades es escadades e
TTAAGGTAGAAGACATTCAGATGCACAACTACCAGCAACACCACCTGCCCCCCCGGT
                                                                                                          Actachadecertecredececedadececedadesecedadecritecadardeadecedadec
                                                                                                                                      CGTTATGGGACGGCCTCCTCGGCGCCCCGGCTGCATCGCACCCGGCCCGCTGCTGG
                                                                                                                                                                                                                                                                            LL-----
                           AGCCATCCATTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGT
                                                      ---creaseagarsarsccscacrccssgrcscrrr
                                                                                                                                                                                                                                                                   1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1291
                                                                                                                                                                                                                           793
                                                                                                                                                                                                                                                        1310
                                                                                                                                                                                                                                                                                  853
                                                                                                                                                                                                                                                                                                                                                                 1430
                                                                                                                                                                                                                                                                                                                                                                                           946
                                                                                                                                                                                                                                                                                                                                                                                                                      1490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1231
                                                                                                                                             1190
                                  070
                                                                                        1130
        586
                                                                                                                   619
                                                              646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $ A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                    g
                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                  ò
                           8
                                                      g
                                                                                      ò
                                                                                                          셤
                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                          HENDLY

US-09-949-016-828

Sequence 828, Application US/09949016

Sequence 828, Application US/09949016

Sequence 828, Application US/09949016

Sequence 828, Application US/09949016

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WIMBER: 80/241, 755

FILE REFERENCE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/231, 768

PRIOR PLING DATE: 2000-10-03

PRIOR PLING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 828

LINGS APPLICATION WINDOWS OF SEQ ID NO 828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cittcaacaatiggggggtrgaacgccccaattattrgiccaacigtrggggagcicc 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  483
                                                                                                                                                                                                                                                                      2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTGCCCAGCATCAGTACCTTCGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ccrecergraccaaargeaececcrrearcaaaereeaegegegegegececcr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGCGCAGACATACAGCTC------GGAATACACCCACGGAGATCATGAACCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCAGATATGCCCTGCGTCCAAGCCCCAATATAGCCCCTTCCCAGGTTCCAGTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     craaadccardctridratrcaddcadararadarcrodcardaraddaadcadd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            crrcrchahacrhachacracrcrrcagahahachacrcahrrichaharraka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTACACCAAGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGT
                                            1816 TITCIGCCITCICCICCATICCIGCCTGGCTATGGTCACAGAGAGACACGGGCTCAGG
                                                                                               GTAAGGGACAGGCTCTGGAGCCCACC-----GAGTCCAAGGTCCTGGGTGCCTGG
                                                                                                                                                                                       TAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGGGCATCTTCTACCTGAAGCTGGAAG
                                                                                                                                                                                                     TCCAAGCCTTAGCCTGCCTGTCAGCACGATGATCACAGAAAGACATGAGTTAAAAG
                                                                             AACCAAAGAGAGTCGAAGAGCTATGCAACAAGATCACAAGCAGTTTAAAAGACCACCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                           Indels 144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 3427;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 497; DB 4; Le
Pred. No. 3.7e-105;
0; Mismatches 640;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 59.1%;
Matches 1135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-949-016-828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    722
                                                                                                             1876
                                                                                                                                         2441
                                                                                                                                                                   1936
                                                                                                                                                                                            2492
                                                                                                                                                                                                                      1996
                                                                                                                                                                                                                                                                            2056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                  2552
                                                                                   2381
```

셤

ò d ò

g ò

ઠે 셤 ò 임 ò

ò

ઠે අු ઠ

ద ð 요 ያ 8 ò g g

δ

ò

a ò g ò

ઠે

```
1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1430 AGGCCGCCGCGCCTTGAGAGCCACCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCGC 1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCAGTAGACAAGAGGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCA 1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCTTCCAAACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTC 1909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCAATCTGCATGATGCCCTTGTCCGAGCTTTAACAGACTCAACACC----CA 1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ccccesicaercrearcaciccircarcaeseccarerceaciccaaccesecrarea 1456
                                                                                                                                                                                                           1010 ACCATCACCATCACCACCACCACCACCACCACCACCATCACCAGCAGCAGCAGCATCAGC 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1130 ACTTCAAGCAGTCCCCACCGTCCACCCCCACGACGCCGTTCCCCCCCGCAGGCGGGGG 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------rieciericaciedecencecesesericecericaaceasesesererecere 1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        946
                                                                                                                                                                                                                                                                                                                                                                                                                       646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------creaseaneariscescaerecerres 679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         680 actaciadecertecresececedesecededecedesecritecassidadesendes 739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccarcricicadacida -----cccegearcricicaciantecaciana con 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1370 ACCCGACGCCGCCTCCAGCCTGCCGCTGGGAGCCGCAGCCGCCGCGCGCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Accacercercescesces and a second a secon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1790 GTGTTGGAATGGTAAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGAGAGGGTCGTC
                                                                                                           CTCTCCCCAGCTTCAGTACCTTTATGGACAACTACAGCACAGGCTACGACGTCAAGCCAC
                                                                                                                                                                                                                                                CGTTATGGGACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      794 CTACGCACATGATCGAGCAGAAAAACGCCAGTCTCCCGGCCTCTCCCTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGCCTTCCCGCCTCTCGCCCTCACGCCCTCCCCTACCCCCTCCAGCCTGCTGGCCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTTTTTCAAGAGAACAGTGCAGAAAAATGCAAAAATATGTTTGCCTGGCAAATAAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTTCTTTAAGCGCACAGTGCAAAAAAAGCAAAAATGCAAAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTITGICAAGTITAGCATGGACCTCACCAACACTGAAATCACT-----GCCACCACTT
                                                                  CCCTGCCCAGCATCAGTACCTTCGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                       1070 AGCCATCCATTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        887 gécagardegérregadegécéergéacerecerengaaceégageégégédégé
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1007 résectricicésecérecasaricescéadeseréricascrécricadadesédades----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1550 GTCCCAGCCTGCCGTCGCCGCCCAGCAGGAGCTCGTCGTCTGGCGAAGGGCACGTGTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1490
431
                                                                                                                                         485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1061
                                                                      890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                   8 8 8
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>ک</u> ۾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>ک</u> ۾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 4467, Application US/09949016

Sequence 4467, Application US/09949016

Batent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT FILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-06-14

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

WINMER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 4467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2440
                                                                                                                                                                                                                                            1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTCAACAATGGGGGGTTGAACCGCCCCAATTATTTGTCCAAACTGTTGGGGAAGCTCC 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1996 cagaactrograccerrigeaeaeaeaeaeeeraeaeeearrireraeeraeeaaarrigaae 2055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTACACCAAGCTGACCATGGACCTTGGCAGCACTGAGATCACGGCTACAGGCCACCACGT
                                                                                                                                                                          ATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTGCCTTCGTGGATTTG
                                                                                                                                                                                                                                            Grada crearcritrice de la construcción de la control de la 
                                                                                                                                                                                                                                                                                                                   GGGAGTGGCTCGACTCTATTAAAGACTTTTCCTTAAATTTTGCAGAGCCTGAACCTTGATA
                                                                                                                                                                                                                                                                                                                                                               TCCAAGCCTTAGCCTGCCTGTCAGCACTGAGCATGATCACAGAAAGACATGGGTTAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u> irrendeciriencendearreciececidecentidereacadadadadecidadad</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACCAAAGAGAGTCGAAGAGCTATGCAACAAGATCACAAGCAGTTTAAAAGACCACCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCCAAGAGAGGAAGAACTGCAAAACAAGATTGTAAATTGTCTCAAAGACCACGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTAAGGGACAGGCTCTGGAGCCCACC-----GAGTCCAAGGTCCTGGGTGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCAGATATGCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGCGCAGACATACAGCTC------GGAATACACCACGGAGATCATGAACCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                crrcrcadacracacrereresesadaaaaaacrecearrrerraacrecad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 59.1%; Pred. No. 3.7e-105;
Matches 1135; Conservative 0; Mismatches 640; Indels 144;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Huma
US-09-949-016-4467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -09-949-016-4467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1936
                                                                                                   1636
                                                                                                                                                                          2201
                                                                                                                                                                                                                                            1696
                                                                                                                                                                                                                                                                                                               2261
                                                                                                                                                                                                                                                                                                                                                                                  1756
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          830
```

837 9

1077

1137

1197

429

483

543

```
GACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCGCCG 1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGAAGGCGGTCCCCACGGTGGCCGCGCGCGTTTCCCGCTTTCCACTTCAAGCCCTCG 1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGCCTCTCGGCCTCACGCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCAGC 1557
                                                                                                                                                                                                                                                                                                                              CCGCCGCATCCCCCCGCGCCCGGCCGGCGGCCACCACCTCGGCTACGACCCGACG 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cecrrridacidedecreracide contra de acceptade de contra d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCCGTCGCCCCAGCAGGAGCTCGTCTCGCCGAGGGCACGTGTGCCGTGTGCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1618 GACAACGCCCCCCCCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1678 AAGAGAACAGTGCAGAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGCTTGAGAGCCACCCGTACGGCCTGCCGCTGCCCAAGAGGGCGGCCCCCGCTGGCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cregariesecagacerrescentecearicearrescarascentecaresecrite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TACCAAATGCCCCTGTCC-------GGACAGCAGTCCTCCATTAAGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                  CATCACCACCACCACCACCACCACCATCACCAGCAGCAGCATCAGCAGCCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dacea-----recegecrecerreacaacriceaccagaacraceregecracecar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 Argectricrotatececataricatecerecicaterandendendendendenerenenen
                                                                            ACATACAGCT-------CGGAATACACCACGGAGATCATGAACCCCGACTACACC
                                                                                                                   Agciacactriaccactricegaagaaracagciccaartrictraacricaagritigric
                                                                                                                                                               AAGCTGACCATGGACCTTGGCACTGAGATCACGGCTACAGCCACGTCCCTGCCC
                                                                                                                                                                                   AGCATCAGTACCTTCGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         277 gaagacarrcagargcacaacraccacaacaacaccaccaccaccccccacac----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTCCTCCAGCCTCCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGTCCCCACCGTCCACCCCCACGCCGGCCTTCCCCCCGCAGGCGGGGGGGTTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1378
730
                                                                                790
                                                                                                                     61
                                                                                                                                                               838
                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                         175
                                                                                                                                                                                                                                                                                                                                   928
                                                                                                                                                                                                                                                                                                                                                                                                                      1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1738
                                                                                                                                                                                                                                                  898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \rightarrow \frac{40}{10}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
8 6
                                                               8 6
                                                                                                                                                  ð
                                                                                                                                                                                           셤
                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                 2260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
د
                                                                                                                                                                                           1577 GGGCAGAGAAGATCCCTGGCTTCGCAGACCTGCCCAAAGCCGACCAAGACCTGCTTTTTG 1636
                                                                                                                                                                                                                                                    AAICAGCCTTTTTGGAGCTGTTTGTCCTCAGACTTTCCAICAGGTCAAAACACTGCTGAAG 2200
                                                                                                                                                                                                                                                                                                                                                               GGGAGTGGCTCGACTCTATTAAAGACTTTTCCTTAAATTTTGCAGAGCCTGAACCTTGATA 2320
                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCAAGCCTTAGCCTGCCTGTCAGCACTGAGCATGATCACAGAAAGACATGGGTTAAAAG 2380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            trrcreccricreciecatrecrecerrecrarecreacadadadacaceceraade 1876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACCCAAGAGAGGAAGAACTGCAAAACAAGATTGTAAATTGTCTCAAAGACCACGTGA 1936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAGCCTGGACTATTCCAGGTTCCAGGCGAACCCTGACTATCAAATGAGTGGAGATGACA 1516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTAAGGGACAGGCTCTGGAGCCCACC-----GAGTCCAAGGTCCTGGGTGCCCTGG 2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1937 CTTTCAACAATGGGGGGTTGAACCGCCCCAATTATTTGTCCAAACTGTTGGGGAAGCTCC 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTIGGIGICTCCACCTICCAICATIGACAAGCICTICCTGGACACCCIACCTITCTAA 2610
                                                                                                                                                                                                                                                                                                                                       ATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTGCCTTCGTGGATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAG
  -- CACTGACCAGGCTGCTGCAGGCACAGATG
                                                                                                                                                                   GGGCAGAAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCAAAGAGAGTCGAAGAGCTATGCAACAAGATCACAAGGAGCAGTTTAAAAAGACCACCAGA
                                                                                                                        cccadcararccadcaarrcrargarcrccrdacrddcrddargaagaarcarccddddcr
                                                                                CTGAGCATGTGCAACAATTCTACAACCTCCTGACAGCCTCCATTGATGTATCCAGAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1797;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Sakurada, Kazuhiro
APPLICANT: Balmar, Theo
APPLICANT: Balmar, Theo
TITLE OF INVENTION: REGULATION OF TYROSINE HYDROXYLASE
TITLE OF INVENTION: EXPRESSION
FILE REFERENCE: 0721/031001
CURRENT APPLICATION NUMBER: US/09/277,078
CURRENT FILING DATE: 1999-03-26
NUMBER OF SEQ ID NOS: 60
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 486.4; DB 3;
Pred. No. 7.9e-103;
0; Mismatches 671;
GAGATCTTGATTATTCCAGATACTGTCC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/09277078 Patent No. 6312949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 58.1%;
Matches 1105; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (006) . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Rattus
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; LOCATION: (1)
US-09-277-078-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
US-09-277-078-1
                                                                                                                     1517
                                                                                                                                                                                                                                                                                              1637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2057
                                       1457
                                                                                                                                                                                                                                                                                                                                       2201
                                                                                                                                                                                                                                                                                                                                                                                                                        2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2321
  1964
                                                                                                                                                                   2081
                                                                                                                                                                                                                                                    2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                $ B
                                                                                                                                                    8 6 8 6
                                                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                g
```

1497

969

1617

801

1677

1737

861

1797

981

```
ò
                                                                                                                                                                                          셤
                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         THEREOF
                                                    1917
                                                                            1095
                                                                                                                                1155
                                                                                                                                                        2037
                                                                                                                                                                                  1215
                                                                                                                                                                                                          2097
                                                                                                                                                                                                                                  1275
                                                                                                                                                                                                                                                             2157
                                                                                                                                                                                                                                                                                                              2217
                                                                                                                                                                                                                                                                                                                                       1395
                                                                                                                                                                                                                                                                                                                                                                 2277
                                                                                                                                                                                                                                                                                                                                                                                                                    2337
                                                                                                                                                                                                                                                                                                                                                                                                                                              1515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1695
                         1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2449 CAGGCTCTGGAGCCCACCGAGTCCAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAAGATC 2508
                                                                                                     1918 TGCATGATGAATGCCCTTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTAT 1977
                                                                                                                                                                                                                                                                                                                                                                                        1696 ficacacacicecrecacecarritriciaecreaaarrigaaacrigeraecaceacea 1755
                                                                                                                            AGTGCCCTCGTCAGAGCCCACGTCGACTCCGGCAATGACCAGCCTGGACTATTCC
              TCCAGATACTGTCCCACTGACCAGGCTGCTGCAGGCACGGTGCTGAGCATGTGCCAACAA
                                                                                                                                                                            AGGTTCCAGGCAAACCCTGACTATCAGATGAGTGGAGATGATACTCAACATATCCAGCAG
                                                                                                                                                                                                          TICTACAACCTCCTGACAGCCTCCATTGATGTATCCAGAAAGGCTGGGCAGAAAAGATTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1516 ATTGCTGCCTGCCTATGGTCACAGAGAGACACGGGCTCAAGGAACCCAAGAGAGAAG
                                                                           AAACCGAAGACCC ----ACAGGATCCCCTCTCCCCTCACCTCGGTGAGTCTGATC
                                                                                                                                                                                                                          1216 TTCTACGATCTCCTGACTGGCTCTATGGAGATCATCAGAGGGTGGGGGGGAGAAGATTCCT
                                                                                                                                                                                                                                                                                    1276 Gertriecreacciecceaaeccearcaceaccierriricaarcaccrirriada
                                                                                                                                                                                                                                                                                                                                                                                                                                   1456 ATTGTTGAATTCTCCTCCAACTTGCAGAATATGAACATCGACATTTCTGCCTTCTCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGAACCGACCCAACTACCTGTTCCAAACTGTTGGGGAAGCTCCCAGAACTTCGCACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCACCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCT
  ATGGTAAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGGAGAGGTCGTCTGCCTTCC
                                                    AAACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCCACCTTCTCCTCCAATC
                                                                                                                                                                                                                                                            GGATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAG
                                                                                                                                                                                                                                                                                                              CTGTTTGTCCTCAGACTTTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGC
                                                                                                                                                                                                                                                                                                                                       1336 TTATTTGTTCTACGCTTAGCATACAGGTCCAACCCAGTGGAGGGTAAACTCATCTTTGC
                                                                                                                                                                                                                                                                                                                                                                 AATGGACTTGTCCTGCATCGACTTCAGTGCCTTCGTGGATTTTGGGGAGTGGCTCGACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                    ATTAAAGACTTTTCCTTAAATTTGCAGAGCCTGAACCTTGATATCCAAGCCTTAGCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2338 CTGTCAGCACTGAGCATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGTCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2398 GAGCTATGCAACAAGATCACAAGCAGTTTAAAAGACCA-----CCAGAGTAAGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1576 GAGCTACAAAACAAAATTGTAAATTGTCTTAAAGACCATGTGACTTTCAATAATGGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ASSOCIATED
OF DETECTION AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4192, Application US/09949016
Fatent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF ITILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF FILE REFERENCE: CLO01307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
FRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-3
FRIOR APPLICATION NUMBER: 60/231,768
FRIOR APPLICATION NUMBER: 60/231,768
FRIOR APPLICATION NUMBER: 60/231,498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-949-016-4392
                                                                                                                              1096
                                                                                                                                                       1978
                                                                                                                                                                                                                                                            2098
                                                                                                                                                                                                                                                                                                              2158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2509
                                                   1858
                                                                                                                                                                                1156
                                                                                                                                                                                                          2038
                                                                                                                                                                                                                                                                                                                                                                 2218
                                                                                                                                                                                                                                                                                                                                                                                                                    2278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 B 6
                      g
                                             ઠે
                                                                   ያ ያ
                                                                                                                     ద
                                                                                                                                               ઠે
                                                                                                                                                                            g
                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                      ठे
                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
ò
```

```
1805
                                                                                                                                                                                                                                                                                                                   1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGAT 1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTGTCTCATCACCACCGGCATGGGCTGCAGGAGCCGCGGCGGGTGGAGGAGCTGCA 1713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1072 GCGGCGAAACCGCTGCCAGTTCTGCCGCTTCCAGAAGTGCCTGGCGGTGGGCATGGTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGGAGGAGGTCGTCTGCCTTCCAAACCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAATGCCCTTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cregactcagesccaecacreccaacregactactcca---agrecaegascreere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGTCCCACTGACCAGGCTGCTGCAGGCACAGATGCTGAGAGCATGTGCAACAATTCTACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             crececeaer------rregaagaagaagaarerregegareracaecaerreraea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGCTCTCCGGTTCTCTGGAGGTCATCCGCAAGTGGGGGGGAGAAGATCCCTGGCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rakacitercaccactrakeckacacererracraskacicescerrecraskacierricar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1534 GGTGCTACACCGGCTGCAGTGTGCCCGTGGCTTCGGGGACTGGATTGACAGTATCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2346 ACTGAGCATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rreargecagearrargergreegeacargreaggecreeaaggecrrerreaaggecag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGCAGAAAAATGCCAAGTTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGICGAAACCGAIGICAGIACTGICGAITITCAGAAGIGICTCAGIGITGGAAIGGIAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTCCTGACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAAATTCCGGGATTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGATCTCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCAGACTTTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ccricecciresceracadercraasccadescaagecaadercarcriciecreadecer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTCCTGCATCGACTTCAGTGCCTTCGTGGATTTGGGGAGTGGCTCGACTCTATTAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTITICCTIAAAITIGCAGAGCCIGAACCITGAIAICCAAGCCTTAGCCIGCCTGTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cricicaaccicciócacacciricaricaarcicaricaccióciricacciricacci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAACAAGATCACAAGCAGTTTAAAAGACCACAGAGTAAGGGACAGG------CTCT
                                                                                                                                                                                                                                                                                                                                                                CGCCTGCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAAC
                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                    27;
                                                                                                                                                                                                                       2486;
                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                   GCCGCCCAGCAGGAGCTCGTCGTCTGGCGAGGGCACGTGTGCCGTGT
                                                                                                                                                                                                                  Query Match 9.6%; Score 363.8; DB 4; Best Local Similarity 61.6%; Pred. No. 2.8e-74; Matches 663; Conservative 0; Mismatches 387;
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 4392
LENGTH: 2486
                                                                                                                                              Human
                                                                                                                     ; TYPE: DNA
; ORGANISM: Humar
US-09-949-016-4392
                                                                                                                                                                                                                                                                                                                   1566
                                                                                                                                                                                                                                                                                                                                                                                                                1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                             952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1714
                                                                                                                                                                                                                                                                                                                                                                892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2166
```

1613

2402 1853 2462 1913 2512

2572 2033 2632

1973

셤 ò g ò 셤

ઠે

```
Sequence 35444, Application US/09949016

Sequence 35444, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,758

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 35444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGICCIGCATC-GACTICAGIGCCTICGIGGATITIGGGGAGICGCTCGACTCTATAAA 2283
                                                                                                                                                                                                                                                                                                                       2284 GACTITICCTIAAATTIGCAGAGCCIGAACCI-TGATAICCAAGCCTIAGCCIGCCTGIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1914 AGCCAGCCAGCTGCTGTCACGTCTGTTGGGCAAACTGCCCGAGCTGCGGACCCTGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCATTGACAAGCTCTTCCTGGACACCCTACCTTTCTAATCAGGAGCAGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                   1794 reccirrerccicarcaccaccaccariadecrecaedaccecaecaecaedaedecr
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2403 ATGCAACAAGATCACAAGCAGTTTAAAAGACCACCAGGATAAGGGACAGGTTCTGGAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------CACCGAGTCCAAGGTCCTGGGTGCCCTGGTAGTACTGAGGAAGATCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                     1674 IGGIGCIACACCGGGCIGCAGIGIGCCGGGGGACTGGGGGACTGGAGTATCCTG
                                                                                                                                                                                                                                                                                                                                                                             2343 AGCACTGAGCATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCT
CCTCAGACTITC-CATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGAC
                                                            TGATCTCCCCAAAGAAGATCAGACATTACTTTGAATCAGCCTTTTTGGAGCTGTTTGT
                                                                                             1554 TGAGCTGTCACCGGCTGACCAGACCTGTTGCTGGAGTCGGACTTCCTGGAGCTCTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8.3%; Score 315.6; DB 4;
98.8%; Pred. No. 2.2e-63;
iive 1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8.3
Best Local Similarity 98.8
Matches 328; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2633 C 2633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2094 C 2094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-949-016-35444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT.12
US-09-949-016-35444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2513
                                                                        2106
                                                                                                                                                     2166
                                                                                                                                                                                           1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2463
                                   1494
                                                                                                                                                                                                                                  2225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                          셤
                                                                                                                                                     8
                                                                                                                                                                                ద
                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                           Š
                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            deaacactredacteadececeageachereceaactedactachecaagtrecaagae 1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGTCCCACTGACCAGGCTGCTGCAGGCACATGCTGACATGTGCAACAATTCTACAA 2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1439 resirecrecentrrassanden----haniecrassansinerascastricracen 1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2046 CCTCCTGACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTAC 2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAATGCCCTTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATA 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1626 CGCCTGCCAGCACTACGGCGTGCGAAGCCTGCAAGGGCTTTTTCAAGAAAC 1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGCAGAAAAATGCGAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAG 1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGAT 1925
                                                                                               GGGCCTCCAGCGCATCTTCTACCTGAAAGCTTGGAAGACTTGGTGTCTCCACCTTCCATCAT 2576
                                                                                                                    1834 GGGCCTGCAGCGCATCTTCTACCTCAAGCTGGAGCATGGTGCCCCCTCCACCATCAT 1893
                  GGAGCCCACCGAGTCCAAGGTCCTGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCT 2516
                                             1774 AGCCAGCTGCCTGTCACTTGGGCAAACTGCCCGAGCTGCGGACCCTGTGCACCCA 1833
                                                                                                                                                                          TGACAAGCTCTTCCTGGACACCCTACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGC 2633
                                                                                                                                                                                                   1090 Trcarcccaccarrardererececacarereadecrecadadecererrereadececae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACGTCGAAACCGATGTCAGTACTGTCGAATGTGTCTCAGAAACTGGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGGAGGAGGTCGTCTGCCTTCCAAACCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dcagccccadaa------raccrcccraccaarcrccrcacractraccrag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCGCCCAGCAGGAGCTCGTCGTCTGGCGAGGGCACGTGTGCCGTGTGCGGGGGACAACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 2637;
                                                                                                                                                                                                                                                                                                           ; Sequence 58, Application US/09566921
; Patent No. 6682888
; GENERAL INFORMATION:
; APPLICANT: Loring, Jeanne F.
; APPLICANT: Loring, Jeanne F.
; APPLICANT: Edwards, Carla M.
; APPLICANT: Edwards, Carla M.
; TITLE OF INVENTION: GENES EXPRESSED IN ALZHEIMER'S DISEASE
; TITLE OF INVENTION: GENES EXPRESSED IN ALZHEIMER'S DISEASE
; CURRENT APPLICATION NUMBER: US/09/566,921
; CURRENT FILING DATE: 2000-05-05
; CURRENT FILING DATE: 2000-05-05
; SOFTWARE: PERL PROGRAM
; SEQ ID NO 58
; LENGTH: 2637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. 6682888 127112.18
US-09-566-921-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9.0%; Score 340.6; DB 4;
61.3%; Pred. No. 7.1e-69;
tive 0; Mismatches 389;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 61.33
Matches 663; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                  RESULT 11
US-09-566-921-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1566
                                                                                                                                                                                    2577
                                                                                                                                                                                                                        1894
                             2457
                                                                                                     2517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
```

g

g à 셤 ò

음

ò

g ò

8

셤 ò ద ò g ò

ò

```
usequence 35441, Application US/09949016

patent No. 681239

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REPERENCE: CLOOL307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR PILING DATE: 2000-10-20

PRIOR PILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: PRESENCE OF WINDOWS Version 4.0

SEQ ID NO 35441

LENGTH: 601
                                                                                                                                   RESULT 14
US-09-949-016-135236
j Sequence 135236, Application US/09949016
j Fatent No. 681239
j GENERAL INFORMATION:
j APPLICANT: VBTER, J. Craig et al.
i TILLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
j TILLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
j TILLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
j CURRENT APPLICATION NUMBER: US/09/949,016
j CURRENT FILING DATE: 2000-04-14
j PRIOR APPLICATION NUMBER: 60/241,755
j PRIOR APPLICATION NUMBER: 60/237,768
j PRIOR APPLICATION NUMBER: 60/237,768
j PRIOR PILING DATE: 2000-10-03
j PRIOR FILING DATE: 2000-10-03
j PRIOR PILING DATE: 2000-09-08
j PRIOR FILING DATE: 2000-09-08
j PRIOR FILING DATE: 2000-09-08
j RIOR FILING 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            366 CAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCTATGCAACAAGATCACAA 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2540 TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCTGGAC 2595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      426 GCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGTCCAAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      486 TGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGGCGCATCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2420 GCAGTITAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCCACCGAGTCCAAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2480 TGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2360 CAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGGCTATGCAACAAGATCACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATGATGACAAGCTCTTCCTGGAC 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match 6.2%; Score 236; DB 4; Length 601; Best Local Similarity 100.0%; Pred. No. 7e-45; Matches 236; Conservative 0; Mismatches 0; Indels
3763 AAAATAGTATGAGTGTGAGTACTAGGAAGGAT 3794
                               301 RABATAGTATGAGTGTGAGTACTAGGAAGGAT 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-135236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 15
US-09-949-016-35441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          546
8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 135237, Application US/09949016

Sequence 135237, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CLO1307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT PILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 135237

LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3526 CAGTTATAGTAACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTG 3585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3586 ATCCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGA 3645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3646 CAATAAGGATTTTTATAGATATAATTTTAATTTTTGTTATTGGTTAAGGAGACAATTTTGG 3705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3706 AGAGCAAGCAAA---TCTTTTAAAAAATAGTATGAATGTGAATACTAGAAAAGATTTAA 3762
                                                                                                                                                                                                           ATCCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGA 3645
                                                                                                                                                                                                                                                                                                                               3646 CAATAAGGATTTTTATAGATATAATTTTAATTTTGTTATTGGTTAAGGAGACAATTTTGG 3705
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAGCAAGCAAA---TCTTTTTAAAAATAGTATGAATGTGAATACTAGAAAAGATTTAA 3762
                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121 ATCCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGTTATAGTAACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTG 120
                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AGAGCAAATCTTCTTTTAAAAATAGTATGAATGTGTGAATACTAGAAAAGATTTAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 CAGTTATAGTAACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTG
                                                                                                                                                                                                                                                                                                                                                                 181 CAATAAGGATTTTTATAGATATAATTTTAATTTTTTGTTATTGGTTAAGGAGACAATTTTGG
                            1 TTACATGTAACTGTTTTTGGTTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCTT
                                                                                    CAGTTATAGTAACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3466 TTACATGTAACTGTTTTGGTTGTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 TTACATGTAACTGTTTTTGGTTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ñ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8.3%; Score 315.6; DB 4;
98.8%; Pred. No. 2.2e-63;
tive 1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3763 AAAATAGTATGAGTGTGAGTACTAGGAAGGAT 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 8.33
Best Local Similarity 98.83
Matches 328; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-135237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Human
US-09-949-016-135237
                                                                                       3526
                                                                                                                                                                                                           3586
                                                                                                                                                                                                                                                                                                                                                                                                                                                   3706
                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                         음
                                                                                 õ
                                                                                                                             q
                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
```

```
| TYPE: DNA | Type: DNA | Corporation | Type: DNA | Corporation | Corpor
```

Search completed: March 21, 2005, 20:50:42 Job time : 606 secs

```
Sequence 46, Appl
Sequence 18, Appl
Sequence 11, Appl
Sequence 115, Appl
Sequence 105, Appl
Sequence 23, Appl
Sequence 229, Appl
Sequence 928, Appl
Sequence 928, Appl
Sequence 97, Appl
                                                                                                                                                                March 21, 2005, 17:28:21 ; Search time 2013 Seconds (without alignments) 11220.332 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Appli
sequence 46, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                         1 ataaatgacgtgccgagaga.....gtgtgagtactaggaaggat 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published Applications NA:*

1: /cgn2_6/ptodata/1/pubpna/USO7_PUBCOMB.seq:*
2: /cgn2_6/ptodata/1/pubpna/PCT NEW PUB.seq:*
3: /cgn2_6/ptodata/1/pubpna/PCT NEW PUB.seq:*
4: /cgn2_6/ptodata/1/pubpna/USO6_NEW PUB.seq:*
5: /cgn2_6/ptodata/1/pubpna/USO6_NEW PUB.seq:*
6: /cgn2_6/ptodata/1/pubpna/USO8_NEW PUB.seq:*
7: /cgn2_6/ptodata/1/pubpna/USO8_NEW PUB.seq:*
8: /cgn2_6/ptodata/1/pubpna/USO8_NEW PUB.seq:*
9: /cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USO8_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO9_NEW PUB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO9_NEW PUB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USO9_NEW PUB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
19: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
10: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
11: /cgn2_6/ptodata/1/pubpna/USO0_NEW PUB.seq:*
12: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
13: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
14: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
15: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
16: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
17: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
18: /cgn2_6/ptodata/1/pubpna/USO0_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11089632
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-853-186-46
US-09-853-386-46
US-09-853-386-78
US-10-414-080-1
9 US-10-247-671-105
6 US-10-247-671-105
8 US-10-002-600-53
US-09-873-367C-229
8 US-10-755-889-63
US-10-641-643-928
US-10-641-643-928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5544816 seqs, 2976611598 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                               OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                 IDENTITY_NUC Gapop 10.0 , Gapoxt 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match Length DB
                                                                                                                                                                                                                                                                                            US-10-608-863-1
3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3794
3802
3802
3802
3802
5828
5542
4977
4977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97.0
96.7
75.8
75.8
70.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3794
3722
3722
3722
369.2
368.2
2875
2875
2689.6
2500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                                                                                                                                          Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database :
                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                         Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80.
```

US-10-005-169-3 Sequence 3, Appli Sequence 20, Appli Sequence 209, Appli Sequence 209, Appli Scale Sequence 61, Appli Scale
<b>80000804504505 044484405400 4080448</b>
13 US-10-005-169-3 17 US-10-144-080-2 9 US-09-853-386-57 19 US-09-853-386-57 19 US-09-853-386-55 19 US-09-853-386-55 19 US-09-853-386-14 19 US-09-853-386-14 15 US-10-205-951-5 15 US-10-205-951-5 15 US-10-205-951-5 16 US-10-205-951-6 17 US-10-205-951-6 18 US-10-205-951-6 19 US-09-853-386-4 10 US-09-853-386-4 11 US-10-205-951-6 12 US-10-205-951-6 13 US-09-853-386-2 14 US-10-205-951-6 15 US-10-205-951-6 16 US-10-205-951-6 17 US-10-205-951-6 18 US-10-205-951-6 19 US-09-853-386-2 19 US-09-853-386-3 19 US-09-853-386-3 10 US-09-853-386-3 11 US-10-205-951-7 12 US-10-205-951-7 13 US-09-853-386-3 14 US-10-205-951-7 15 US-09-853-386-3 16 US-10-205-951-7 17 US-10-414-080-5 17 US-10-414-080-5
4 4 4 4 6 4 6 4 6 4 6 4 6 4 6 6 6 6 6 6
88888888888888888888888888888888888888
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
111 112 113 114 115 115 115 115 115 115 115 115 115
υυ

## ALIGNMENTS

US-10-608-863-1

```
PUDICATION NO. US20040214192A1

PUDICATION NO. US20040214192A1

REBREAL INFORMATION:
APPLICANT: Hashida, Ryoichi
APPLICANT: Kagaya, Shinji
APPLICANT: Sugita, Yuji
APPLICANT: APPLICANTON NUMBER: US 2003-06-27

NUMBER OF SEQ ID NOS: 18

SEQ ID NO 1

SEQ ID NO 1

ARGARH: APPLICANTON

SEQ ID NO 1

ARGARH: PatentIn Ver. 2.0

SEQ ID NO 1

ARGARH: APPLICANTON

ANAME/KEY: CDS

ANAME/KEY:
```

ŝ

TCCCCACCGTCCACCCCCACCACCCCCCCCCCCCCCCCC	
6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
ATAAATGACGTGCCGAAGAGAGAGAGACGCGAGACGGGAAGAGCGGAGTCTCTGCCT CCGGCCCCCCACCCCTCCAGGTCCTGCTCCTCCTCCGCTCCCATACACAGACGGCTCA CCGGCCCCCCACCCCTCCAGGTCCTGCTCCTCCTCCGCTCCCCTAACACAGACGCGCTCA CCGGCCCCCCCACCCCTCCAGGTCCTGCTCCTCCTCCCCTCAACCCCCTAACACACAC	601 GGACCCTTAGCGGGGAGCATGCCGGGGGTTCGCCGGGAGGTCCCTCT 660  601 GGACCCTTAGCGGGGAGCATGCCGGGGGTTCGCCGGCGAGGTCCCTCT 660  601 GGACCCTTAGCGGTGCCGGGGCACTGCCGGGCTTCGCCGGCGCAGGTTC 720  601 GGACCCTTAGCGCTCGGGGCAGCACTGCCGGCGTTCGCCGGCGCAAGATAC 720  602 CCTCCAGATATGCCCTGGGTCCAAGCCCCAATTAGCCCTTCCCCTCCAGTTAT 780  721 CCTCCAGATATGCCCTGGGTCCAAGCCCAATATAGCCCTTCCCCTCCAGTTAT 780  722 CCTCCAGATATGCCCTGGGTCCAAGCCCAATATAGCCCTTCCCCTCCAGTTAT 780  723 CCTCCAGATATGCCTGGGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTAT 780  724 CCTCCAGATATGCCTGGGACATACACCAGGAGATACACCCAGGTTCCAGGTTAT 780  725 CTCCAGATATGCAGCTCGGAATACACCAGGAGATACATAGAACCCCTCCCAGGTTAT 780  726 GCGGCGCAACATACAGCTCGGAATACACCAGGAGATACATAGAACCCCCAGGTTAT 780  727 CTCCAGATATGCAGCATACAGCAGAATACACCAGGAGATACATAGAACCCCAGGTTAT 780  728 GCGGCGCAACATACAGCTCGGAATACACCAGGAGATCATGAACCCCCAGGTTAT 780  729 GCGGCGCAACATACAGCTCGAAATACACCAGGAGATCATGAACCCCCAGGTTAT 780  740 ACAGCACCATGGAACTACAGAATACACAGGAAATCAAGCCACCCCCAGCTCCCTGCCCAGC 900  750 ATCAGTACCTTCGTGGAGGACACTCGAGAATCAAGCCACCCAC

	RESULT 2 US-09-853-386-46  i Sequence 46, Application US/09853386  i Sequence 46, Application US/09853386  i Sequence 46, Application US/09853386  i Better No. US20020049151A1  i GENERAL INFORMATION:  i APPLICANT: Murphy, Evelyn  i APPLICANT: Conneely, Orla  i APPLICANT: Conneely, Orla  i TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the NURR  i TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors  i TITLE OF INVENTION: US/09/853,386  CURRENT FILING DATE: 2000-05-12  PRIOR APPLICATION NUMBER: US 60/203645  PRIOR PLICATION NUMBER: US 60/203645  i SOFTWARE: PatentIn version 3.1  i SEQ ID NO 46  i LENGTH: 3802  i TYPE: DNA  i ORGANISM: HUMAN  US-09-853-386-46	Query Match   98.1%; Score 3722; DB 9; Length 3802;
2221 GGACTYGTCCTGCANTCGACTTCGTGGATTTGGGGGGGGGGCTCGACTCTATT 2280  2221 GGACTYGTCCTGCANTCGACTTCAGTGCCTTGGTGGTTHT [	2761 TCTTTTCCTTACAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTTTT 2820 2761 TCTTTTCCTTACAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGGTTGTTTTT 2820 2821 ATATTAGGCATTGGGGGTGGGAGGGGGTTATAGTTCATGAGGGTTTTCTAAGA 2880 2821 ATATTAGGCATTGGGGGTGGGAGGGGGTTATAGTTCATGAGGGTTTTCTAAGA 2880 2821 ATATTAGGCATTGGGGGTGGGAGGGGGTTATAGTTCATGAGGGTTTTCTAAGA 2880 2881 AATTGCTAACAAAGCATTTGGACAATGCTATCCCAGCAGGAAAAAAAA	3121 CTTCTTCCTTTATTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCAGACATGG 3180 3121 CTTCTTCCTTTATTTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCAGACATGG 3180 3181 CAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGCTGTTTA 3240 1181 CAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTTT

Tue

음 &

음 성 음

ઠે

음 중 음

**6 6 6** 

ያ ያ

ያ ያ

8 & 8

ઠે

8 8 8

⋧

රු පු

g

8 8 8

6666

셤

```
the MURR
                                                                                                                                                                                                                                                                                                                             Sequence 78, Application US/09853386
; Sequence 78, Application US/09853386
; Batent No. US20020049151A1
; GENERAL INFORMATION:
; APPLICANT: Murphy, Evelyn
; APPLICANT: Gomeely, Orla
; TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the 1;
TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the 1;
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
; TITLE OF INVENTION: UNMBER: US/09/853,386
; CURRENT APPLICATION NUMBER: US/09/853,386
; CURRENT FILING DATE: 2001-05-11
; PRIOR PILING DATE: 2000-05-12
; NUMBER OF SEQ ID NOS: 153
; SOFTWARE: Patentin version 3:1
; TEMPLE SEC ID NO 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCCGCTCCCTCACTCGCACACACACACACGCGCCACAGGGCTCCG--CACACAC 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                          3541 TGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAG
                                                                                                                                                                                                                  TGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAG
                                                                                                                                                                         TATAGATATAATTTTTTTTTTA--TTGGTTAAGGAGA-CAATTTTGGAGAGCAAGCA
                                                                                                                                                                                     AACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTT
                                                                                                                                          AACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCGCCCCCCACCCTCCAGCTCCTGCTCCTCCGCTCCCCATACACAGAGGCGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 3802;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATAAATGACGTGCCGAGAGAGCGAGCGAACGCGCAGCCGGGAGAGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98.1%; Score 3722; DB 9; 199.4%; Pred. No. 0; 1ive 0; Mismatches 15;
                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.4'
Matches 3779; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
CRGANISM: HUMAN
US-09-853-386-78
3419
                    3421
                                          3479
                                                              3481
                                                                                    3539
                                                                                                                              3599
                                                                                                                                                   3601
                                                                                                                                                                         3659
                                                                                                                                                                                              3661
                                                                                                                                                                                                                   3716
                                                                                                                                                                                                                                       3721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
8 6 8 6
                                                                              ठे हे ठ
                                                                                                                                            요 장
                                                                                                                                                                                        g
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                    2458
                                                                        2460
                                                                                              2518
                                                                                                                   2520
                                                                                                                                         2578
                                                                                                                                                                                   2638
                                                                                                                                                                                                       2640
                                                                                                                                                                                                                            2698
                                                                                                                                                                                                                                                  2700
                                                                                                                                                                                                                                                                       2758
                                                                                                                                                                                                                                                                                             2760
                                                                                                                                                                                                                                                                                                                  2818
                                                                                                                                                                                                                                                                                                                                        2820
                                                                                                                                                                                                                                                                                                                                                             2878
                                                                                                                                                                                                                                                                                                                                                                                  2880
                                                                                                                                                                                                                                                                                                                                                                                                        2938
                                                                                                                                                                                                                                                                                                                                                                                                                             2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTCAGCACTGAGCATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGGGCGGAAG
                                                                                                                                      2701 TGTCCTTCCTTAAGAAGAAAAGCAGCTCCTGTAGAAAGCAAAGAAGTTTCTTTTTTTCTG
                                                                                                                                                                                                                                                                                                                CCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTG
                                                                                             AGCCCACCGAGTCCTGGTGCCTGGTAGAACTGAGGAAGATCTGCACCCTGG
                                                                                                          2461 AACCCAACGAGTCCAAGGTCCTGGTTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGG
                                                                                                                                                                                            2581 ACAAGCTCTTCCTGGACACCCTACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCT
                                                                                                                                                                                                                                       2821 TTATATTTAGGCATTGGGGATGGGGTGGGGGTTATAGTTCATGAGGGTTTTTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                        GAAATTGCTAACAAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAAAGGATAATA
                                                                                                                                                                                                                                                                                                                                                                                                                   GGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGCTGTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTG
                                                                                                                                                                                   ACAAGCTCTTCCTGGACACCCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCT
                                                                                                                                                                                                                            CCTCTCCTAGCACCTGCTTGCTACGCAGCAAAGGGATAGGTTTGGAAACCTATCATTTCC
                                                                                                                                                                                                                                                                       TRATATTTAGGCCATTGGGGGTGGGGGGGTTATAGTTCATGAGGGTTTTCTAA
                            2341
                                                                                                                                                                                 2579
                                                                                                                                                                                                                                                  2641
                                                                                                                                                                                                                                                                       2699
                                                                                                                                                                                                                                                                                                                                                           2819
                                                                                                                                                                                                                                                                                                                                                                                                                           2881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3299
                                                                                             2459
                                                                                                                                                                                                                            2639
                                                                                                                                                                                                                                                                                                                                                                                                      2879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3359
```

1419 COCCTIOGNOCCHICOCCH
6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
135   COCCEAAACCTCTCCCCCATAAATCCCCATAAATCCCCCATACACCCCCC

8 6 8 6 8

6 8 6 8 6 8 6

```
APPLICANT: Zhong et al.
TITLE OF INVENTION: THERAPEUTIC POLYPEPTIDES, NUCLEIC ACIDS ENCODING SAME, AND METHOP
FILE REFERENCE: 21402-608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: 05/295,004

CURRENT FILING DATE: 2003-09-09

PRIOR PLILAGION NUMBER: 60/295,607

PRIOR FILING DATE: 2001-06-04

PRIOR FILING DATE: 2001-06-04

PRIOR FILING DATE: 2001-06-06

PRIOR FILING DATE: 2001-06-06

PRIOR FILING DATE: 2001-06-06

PRIOR PLING DATE: 2001-06-06

PRIOR PLING DATE: 2001-06-06

PRIOR PLING DATE: 2001-06-11

PRIOR PLING DATE: 2001-06-11

PRIOR PLING DATE: 2001-06-11

PRIOR PLING DATE: 2001-06-11

PRIOR PLING DATE: 2001-06-12

PRIOR PLING DATE: 2001-06-14

PRIOR PLING DATE: 2001-06-16

PRIOR PLING DATE: 2001-06-16

PRIOR PLING DATE: 2001-06-21

PRIOR PLING DATE: 2001-06-26

PRIOR PLING DATE: 2001-06-27

PRIOR PLING DATE: 2001-06-26

PRIOR PLING DATE: 2001-06-27

PRIOR PLING DATE: 2001-06-27

PRIOR PLING DATE: 2001-06-21

PRIOR PLING DATE: 2001-06-21

PRIOR PLING DATE: 2001-06-21

PRIOR PLING DATE: 2001-06-21
                                                ACTICGCICICCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGCGG
                                                                                                                         AA---TCTTTTTAAAAAATAGTATGAATGTGAATACTAGAAAAGATTTAAAAAATAGTAT
                                                                                                                                                                       AATCTTCTTTTTAAAAATAGTATGAATGTGAATACTAGAAAAGATTTTAAGAAATAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ATAAATGACGTGCCGAAGAGCGAACGCAACGCGCAGCGGGAGAGGGGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCCGCTCCCTCACTCGCACACACACACAGCGCGCACACAGGCTCCG--CACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 ATAAATGACGTGCCGAGAGAGCGAGCGAACGCGCAGCCGGGAGAGCGGAGTCTCCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 3802;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98.1%; Score 3722; D
99.4%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                       GAGTGTGAGTACTAGGAAGGAT 3794
                                                                                                                                                                                                                                                                                                                                                                                             Sequence 115, Application US/10659004
Publication No. US20050048507A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 99.4
Matches 3779; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .. (2609)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; NAME/KEY: CDS
; LOCATION: (732)
US-10-659-004-115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo
                                                                                                                         3716
                                                                                                                                                                       3721
                                                                                                                                                                                                                     3773
                                                                                                                                                                                                                                                                      3781
                            3659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       179
                         8 6
                                                                                                              8
                                                                                                                                                          g
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                2698
                                                                                                                                                                                                 2700
                                                                                                                                                                                                                                                  2758
                                                                                                                                                                                                                                                                                                2760
                                                                                                                                                                                                                                                                                                                                                 2818
                                                                                                                                                                                                                                                                                                                                                                                                                                              2878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2821 TIATATTTAGGCATTGGGGATGGGGTGGGGGGTTATAGTTCATGAGGGTTTCTAA 2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2881 GAAATTGCTAACAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAAAGGATAATA 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAGCCAAGGGTTGTTCGCCAGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAAT 3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAACTTCCTTTTAATT 3118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTG 3420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTAACTG 3480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2521 GCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTG 2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2939 TAACTGTTTTAAAACTCTTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAA 2998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2941 TAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAA 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAAAT 3058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTTCTTCCTTTATTTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCAGACAT 3178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGCTGTCT 3238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3241 TACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAGGGAGGAGTCA 3300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3301 TGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCGATC 3360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTAACTG 3478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAG 3598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTT 3658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAGGATTTT 3660
                                                                                                                                                                                                                                                                            3061 ATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAACTTCCTTTTAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3121 TCCTTCTTCTTTTTTTAACAAATGGTGAAAGATGGGGGGATTACCTACAAATCAGACAT
                                                                                                                                                CCTCTCCTAGCACCTGCTTGCTACGCAAAGGGATAAGGTTTGGAAACCTATCATTTCC
                                                                                                                                                                          2641 CCTCTCCTAGCACCCTGCTTCTACGCAAAAGGAATAGGTTTGGAAACCTATCATTTCC
                                                                                                                                                                                                                                               2761 GCTCTTTTCCTTACAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3181 GCCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGCTGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAGGAGGCAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTG
                                                                          2581 ACAAGCTCTTCCTGGACACCCTACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCT
                                                                                                                                                                                                                                                                                                                                                 GCTCTTTTCCTTACAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                              TTATATTTAGGCATTGGGGATGGGGTGGGGGGTTATAGTTCATGAGGGTTTTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3539
                                                                                                                                                2639
                                                                                                                                                                                                                                               2699
                                                                                                                                                                                                                                                                                                                                                 2759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3599
                                                                                                                                                                                                                                                                                                                                                                                                                                              2819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3601
```

g

6 6 6 6 6 6

8 8 8 8

셤

8 8 8

6 6 6 6 6

g

6 6 6

6 6 6 6 6

8

```
3658
                                                                                                            3660
                                                                                                                                  3715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCGCCCCCCACCCCTCCAGCTCCTCCTCCTCCCTCCCCCATACACACAGACGCGCTCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
3541 TGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAG
                                                                                                   3601 AACATGCAAATCAGCAAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAAGGATTTT
                                                                                                                                                                                         61 CCGGCCCCCCCCCCCCCCGGCTCCTGCTCCTCCGCTCCCCCTATACACACAGACGGGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA---TCTTTTTAAAAATAGTATGAATGTGAATACTAGAAAAAGATTTAAAAAATAGTAT
                                           TGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAG
                                                                                       AACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAGGCACCAGGGACAATAAGGATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 5828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No. US20030194721A1 349343.3
                                                                                                                                                                                                                                                                                                                                                                                 CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 16;
                                                                                                                                                                                                                                                                                Sequence 105, Application US/10247671
; Sequence 105, Application US/10247671
; Publication No. US20030194721A1
; GENERAL INFORMATION:
; APPLICANT: Mikita, Thomas
; APPLICANT: Miffman, Dov.
; APPLICANT: Matchew R.
; TILLE OF INVENTION: GENES EXPRESSED IN TREATED FOAN
; FILE REFERENCE: PA-0050 US
; CURRENT FILING DATE: 2002-09-18
; CURRENT FILING DATE: 2002-09-19
; NUMBER OF SEQ ID NOS: 186
; SOFTWARE: PERL PROGram
; SEQ ID NO 105

LEASTHREE PERL PROGram
; SEQ ID NO 105
                                                                                                                                                                                                                                                                                                                                                                                 FOAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97.0%; Score 3679.2;
98.1%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: unsure

CCATION: 1012-1074, 4044-4074, 5807

COTHER INFORMATION: a, t, c, g, or other

US-10-247-671-105
                                                                                                                                                                                                                       3773 GAGTGTGAGTACTAGGAAGGAT 3794
                                                                                                                                                                                                                                    Best Local Similarity 98.1
Matches 3728; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                               RESULT 6
US-10-247-671-105
                                           3539
                                                                                       3599
                                                                                                                                                                              3716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                      g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
  8 8
                                           ò
                                                         셤
                                                                                      Ś
                                                                                                                                                   셤
                                                                                                                                                                             ઠે
                                                                                                                                                                                               셤
                                                                                                                                                                                                                  ∂
                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3480
                                 2460
                                                       2518
                                                                            2520
                                                                                                  2578
                                                                                                                      2580
                                                                                                                                                                                        2698
                                                                                                                                                                                                             2700
                                                                                                                                                                                                                                    2758
                                                                                                                                                                                                                                                         2760
                                                                                                                                                                                                                                                                               2818
                                                                                                                                                                                                                                                                                                    2820
                                                                                                                                                                                                                                                                                                                          2878
                                                                                                                                                                                                                                                                                                                                                                     2938
                                                                                                                                                                                                                                                                                                                                                                                           2940
                                                                                                                                                                                                                                                                                                                                                                                                                 2998
                                                                                                                                                                                                                                                                                                                                                                                                                                     3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                           3058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCTTCTTCCTTTATTTAACAATGGTGAAAGATGGAGGATTACCTACAAATCAGACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTAACTG
                                                                                                                                           2821 TTATATTTAGGCATTGGGGATGGGGTGGGGGGTTATAGTTCATGAGGTTTTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                 TAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAAACTGGATTACATGTAACTG
                       AGCCCACCGAGTCCAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCTGG
                                                                  AACCCAACGAGTCCAAGGTCCTGGTTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGG
                                                                                                GCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATTG
                                                                                                              CCTCTCCTAGCACCTGCTTGCTACGCAGAGGGATAGGTTTGGAAACCTATCATTTCC
                                                                                                                                                                                                      3121 TCCTTCTTCCTTTTTTTACAAATGGTGAAAGATGGAGATTACCTACAAATCAGACAT
                                                                                                                                                                                                                                                                                                                           TTATATTTAGGCATTGGGGATGGGGTGGGGGGTTATAGTTCATGAGGGTTTTCTAA
                                                                                                                                                                                                                                                                                                                                                                    GAAATTGCTAACAAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAAAGGATAATA
                                 2401
                                                      2459
                                                                           2461
                                                                                                  2519
                                                                                                                                                                                                                                                                                                                                                                                                                 2939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3301
                                                                                                                                                                                        2639
                                                                                                                                                                                                                                                                                                                           2819
                                                                                                                                                                                                                                                                                                                                                                     2879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3421
            2399
```

g

8 8 8

Q

ઠે

ò

g

셤

ઠ

g

ઠે

셤

ò

g

δ

셤

ઠે

음

δ

g

ઠે

g

g

ઠે

ę,

153 850 213

Tue

```
GAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCGGCGCCCCGGCTGCATCGCACCCGGCCCGCTGCTGGACCCCGCCGATGAAGGCGGTCC 1270
                                                                                                                                                                                                                            274 rigigasagacracracascracaacracaacrasaccriccracasgracaaaracaac 333
                                                                                    1114 GAAACCGATGTCAGTACTGTCGGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAG
                                              334 GGCCTTGATCAAAGTGGAGGGGGGGGGGGCGCCCAGCTACCATCACCATCACCACCACC
                                                                                                                                                                                                                                                                                                                              874 TCACGCCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCAGCCTGCCGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           934 CCAGCAGGAGCTCGTCGTCGTCGAGGCACGTGTGCCGTGTGCGGGGGACAACGCCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1054 AGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAAACTGCCCAGTAGACAAGAGAGACGTC
                                 CCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGG--CGCAGA
                                                                                                                                             ACCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCT
                                                                                                                                                                      accrirecaecaecreagarcaegeraeaeceaecaecreecreecaecarcaeraecr
                                                                                                                                                                                                   TCGTGGAGGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGC
                                                                                                                                                                                                                                                         GGCCCTTGATCAAAGTGGAGGAGGGGGGGGCCCAGCTACCATCACCATCACCACC
                                                                                                                                                                                                                                                                                                                                                                       CCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAGTCCCCACGT
                                                                                                                                                                                                                                                                                                                                                                                     454 CCAGCCCGGAGGACGAGGTGCTGCCCAGCACCTCCATGTACTTCAAGCAGTCCCCCACCGT
                                                                                                                                                                                                                                                                                                                                                                                                                             CCACCCCCACCACGCCGCCCTTCCCCCCGCAGGCGGGGGGGTTATGGGACGAGGCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACCCCACCCAGCCGGCCTTCCCCCCGCAGGGGGGGTTATGGGACGACGACTACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    574 CCTCGGCCCCGGCTGCATCGCACCGGCCCGCTGCTGGACCCGCCGATGAAGGCGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            634 CCACGGTGGCCGCGCGCTTCCCGCTCTTCCACTTCAAGCCCTCGCCGCCGCCATCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  754 readecracederadadecedecadecedededecedecedecedecedecerradadece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           814 ACCCGTACGGGCTGCCGCTGGCCAAGAGGCGGCCCCCGCTGGCCTTCCCGGCCTCTCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAGCAGGAGCTCGTCGTCTGGCGAGGGCACGTGTGCCGTGTGCGGGGGACAACGCCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGGCTTTTTCAAGAGAAACAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGACGTC
                                                                                                                                                                                                                                                                                                                 CCACGGTGGCCGGCGCGCTTCCGGCTTTCCACTTCAAGCCCTTCGCCGCCGCATCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            694 CCGCGCCCAGCCCGGCCGGCGCCACCACCTCGGCTACGACCCGACGGCCGCTGCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAGCCTGCCGCTGGGAGCCGCAGCCGCGGGGCAGCCAAGGCCGCCGCGCTTGAGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCCGCTGGCCTTCCCCGCCTCTCGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCACGCCCTCCCCTACCGCGTCCAGCCTGCTGGGCGAGAGTCCCCAGCCTGCCGTCGCCGC
     Gaps
     19;
     Indela
     40;
     Mismatches
     ö
     Conservative
     Matches 3008;
                                                                                                                                                                      214
                                                                                                                                                                                                                                                                                                                                           394
                                                                                                                                                                                                                                                                                                                                                                                                                                                        514
                                                                                                                                             851
                                                                                                                                                                                                  911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1751
                                                          94
                                                                                                                                                                                                                                                                                                                 1031
                                                                                                                                                                                                                                                                                                                                                                       1091
                                                                                                                                                                                                                                                                                                                                                                                                                              1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1691
                                                                                                                                                                                                                                                         971
                                                      셤
                                                                                                            g
                                                                                                                                                                임
                                                                                                                                                                                                                          ď
                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                           Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         යු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요. 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                 ઠે
                                                                                   ò
                                                                                                                                            ò
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 63, Application US/10755889

Sequence 63, Application US/10755889

Publication No. US20040171823A1

GENERAL INFORMATION:

APPLICANT: BISECOL-Mers Squibb Company

TITLE OF INVENTION: PATHWAY

FILE REPERENCE: DO244 NP

CURRENT FILING DATE: 2004-01-13

PRIOR APPLICATION NUMBER: U.S. 60/440,068

PRIOR APPLICATION NUMBER: U.S. 60/469,757

PRIOR PILING DATE: 2003-01-14

PRIOR FILING DATE: 2003-05-12

NUMBER OF SEQ ID NOS: 823

SOFTWARE: Patentin version 3.2

SEQ ID NO 63

LENTH: 4977
                                             3250
                                                                        2608
                                                                                                    3310
                                                                                                                               2665
                                                                                                                                                         3370
                                                                                                                                                                                     2725
                                                                                                                                                                                                                3430
                                                                                                                                                                                                                                            2785
                                                                                                                                                                                                                                                                      3490
                                                                                                                                                                                                                                                                                                  2845
                                                                                                                                                                                                                                                                                                                              3550
                                                                                                                                                                                                                                                                                                                                                         2904
                                                                                                                                                                                                                                                                                                                                                                                  TCATTCAGAAGCGCCATAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATC 3610
                                                                                                                                                                                                                                                                                                                                                                                                                2959
                                                                                                                                                                                                                                                                                                                                                                                                                                          3670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3080 AAATAGTATGAATGTGAATACTAGAAAAGATTTAAGAAATAGTATGAGTGTGAGTGTATAG 3139
                                                                                                                                                                                                                                                                                                                           AAATAGTATGAATGTGAATACTAGAAAAGATTTAAAAAATAGTATGAGTGTGAGTACTAG
                                                           TITATTAACTCTCTTTATTCTATATGGAAATAAAAGGAGGCAGTCATGTTAGCAAATG
                                                                                                                            T---TATACTCTCTTATCTATATGCCGGAATAAAAAGGAGGCAGTCATGTTAGCAAATG
                                                                                                                                                                                                                                                                                   2905 TCATTCAGAAGCGCCATAAGTCAGTTGAGTATT--GATCCTAGATAAGAACATGCAA---
                                                                                                                                                                                                                                                                                                                                                                                                                                          3611 AGCAGGAACTGGTCATACAGGGTAAGCACCAGGGACAATAAAGGATTTTTATAGATATAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGAGGACTGGTCATACAGGGTAAGCACCAGGGACAATAAAGGATTTTTATATAGATATAAT
ATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGCTGTCTTACTAAGTCTTG
                                                                                                                                                                                                                                                                      AGCTATCCTGAAAGTGGATCAGATTATAAACTGGATTACATGTAACTGTTTTGGTTGTGT
                                                                                                                                                       ACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGTCGATCCCTTCTGAGGTA
                                                                                                                                                                                                                TGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGATCCCTGCCCTGACTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 4977;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 2875;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75.8%;
98.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGGAT 3146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAGGAT 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-755-889-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-755-889-63
                                                                      2552
                                                                                                                                                                                   2666
                                                                                                                                                                                                                                                                      3431
                                                                                                                                                                                                                                                                                               2786
                                                                                                                                                                                                                                                                                                                                                        2846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3020
                 2494
                                             3191
                                                                                                 3251
                                                                                                                             2609
                                                                                                                                                         3311
                                                                                                                                                                                                               3371
                                                                                                                                                                                                                                           2726
                                                                                                                                                                                                                                                                                                                            3491
                                                                                                                                                                                                                                                                                                                                                                                  3551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                       유
                                                                                                                                                                            ద
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                 유
                                                                 ద
                                                                                                ò
                                                                                                                                                       ò
                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                             ઠે
```

1090

453

1030

970

273

1150

513

1210

573

1330

693

1390

753

1450

813

1510

1570

1630

993

1690

1750

us-10-608-863-1.rnpb

1111 TICTICCORROCARIOTECTICAMAGENICALINICI III III III III III III III III II	2254 MAGGACTITICGACCHATCCTATCCACCACAAAAAAAACGATAATTAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTTAAACTGTTTCTTTAAACTGTTTCTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTGTTCTTTTAAACTTCTTTTAAACTTCTTTTAAACTTCTTTTTAAACTTCTT	RESULT 10 US-10-641-928 US-10-641-643-928 ; Sequence 928, Application US/10641643 ; Publication No. US20040077003A1 ; GENERAL INPORMATION: ; APPLICANT: Cocks, Benjamin G. ; Jeffrey J. Seilhamer
1911		
	TITITICCGTACAGNIAGTCTGAAAGGAGGAGGAGGTCCTTGCCTTCCCAAACCAAACCAACC	711 ACAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTTTTATATTTAGGC 283  134 ACAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTTTTATATTTAGGC 219  134 ACAACCTAAAGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTTTATATTTTAGGC 219  134 ACAACCTAAAGCCAGAAAGAGGGGGTTATAGTTCATGAGGGTTTTCTAAGAAATTGCTAAC 289  134 ATTGGGGGATGGGGGGGGGGTTATAGTTCATGAGGGTTTTCTAAGAAATTGCTAAC 285

```
1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACGGTGGCCGGCGCGCTTCCCGCTTTCCACTTCAAGCCCTCGCCGCCGCATCCCCC 1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1632 CCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAGTGCA 1691
                                                                                                                    738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    858
                                                                                            671
                                                                                                                                                                                       731
                                                                                                                                                                                                                                                                            791
                                                                                                                                                                                                                                                                                                                                                                                                                                                               911
                                                                                                                                                                                                                                                                                                                                                                       ATACAGCTCGGAATACACCACGGAGATCATGAACCCCGACTACACCAAGCTGACCATGGA 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCCCACCACGCCGGCCTTCCCCCCCGCAGGCGGGGGCGTTATGGGACGAGGCACTGCC
                                               AAAGCCCACTGCGGAAGAGGCCCCGGCAAGCCCCGGGCCCTGAGCCTGGACCCTTAGC
                                                                                                                                                                                                              ATACAGCTCGGAATACACCCACGGAGATCATGAACCCCGGACTACACCAACAACTGACCATGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGGAGGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCCCCACCACGCCGGCCTTCCCCCCGCAGGCGGGGGGCGTTATGGGACGAGGCACTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCGGCGCCCGCTGCATCGCACCCGGCCCGCTGCTGGACCCGGCCGATGAAGGCGGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCGGCGCCCGGCTGCATCGCACCCGGCCCCCTGGACCCCGCCGATGAAGCGGGGCCCC
                                                                                                                                                                                                                                                                            GCCCTGCGTCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGCGCAGAC
                                                                                                                                                                                                                                                                                                         GCCCTGCGTCCAAGCCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGCGCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTTGGCAGCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTTGGCAGCACTGAGATCACGGCTACAGCCACCACCTCCCTGCCCAGCATCAGTACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGGAGGGCTACTCGAGCAACTACGAACTCCAAGCCTTCCTGCGTGTACCAAATGCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                859 GCCCTTGATCAAAGTGGAGGAGGGCGCGCCCAGCTACCATCACCATCACCACCACCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACGGTGGCCGCGCGCGCTTCCCCGCTCTTCCACTTCAAGCCCTCGCCGCCGCATCCCCC
                                                                                                                                                                                       AGCCTCCGCTGGAGAGACCCCCAGCCCCATTCAGCGCGCAAGATACCCTCCAGATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCGCCCAGCCCGGCCGCCGCCACCACCTCGGCTACGACCCGACGGCCGCTGCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCCTGCCGCTGGGAGCCGCAGCCGCCGCGGCAGCCAGGCCGCCGCGCTTGAGAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cecenacecerceceracecaaaaacecececececaacecerrececererececer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCAGGAGCTCGTCTGGCGAGGCCACGTGTGCCGTGTGCGGGGACAACGCCGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCGCCCAGCCCGGCCGCCGCCACCTCGGCTACGACCCGACGGCCGCTGCCGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCGTACGGGCTGCCGCTGGCCAAGAGGGCGGCCCCCGCTGGCCTTCCCGGCCTCTCGGCCT
                                                                                                                                                                                                                                                                            732
                                                                                                                                       499
                                                                                                                                                                                    672
                                                                                                                                                                                                                               559
                                                                                                                                                                                                                                                                                                                         619
                                                                                                                                                                                                                                                                                                                                                                                                                 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1399
                                                 439
                                                                                                                                                                                                                                                                                                                                                                       792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1572
    552
                                                                                            612
                                                                                                                                                                                                                                                                                                                                                                                                                                                               852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1159
                                                                                                                              a
                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                            ઠે
                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCCGGCAGTGGCCGTGGAGGTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAGCGGCGCATCCTCCCCCCTGGTCACAGCCCAAGCCAGGACGCCCGCGGGAACCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGCCGCTGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGTGACTCCCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGCCGCTGGGCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGCGACTCCCCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAACCGCCACAGCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCAGATTTCGGGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAACCGCCACAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGCGCTCACCCCTCTTGCCCTGAGCCCTTGCCGGTGCAGCGGGGGCGCCGCAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGCGCTCACACCCCTCTTGCCCCTGAGCCCCTTGCCGGTGCAGCGCGGCGCCGCAGCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCCCTCCCGGGCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGCCGTGGAGGTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCTGTGCTCTCCCATGAGTCGGGATCGCAGCATCCCCCACCAGCGGCTCACCGCCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
    CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 17; Length 2714;
    DETECTION OF BLOOD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
CORREATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/641,643
FILING DATE: 14-Aug-2003
CLASSIFICATION NUMBER: <UNKnown>
PRIOR APPLICATION NUMBER: <UNKnown>
ATTORNEY/AGENT INFORMATION:
ANNEY: ZAILNG DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:
ANNEY: ZAILNG PARE: <UNKNOWN-
ANNEY: ZAILNG PARE: <UNKNOWN-
ATTORNEY/AGENT INFORMATION:
ANNEY: ZAILNG PARE: <UNKNOWN-
ATTORNEY/AGENT INFORMATION:
ANNEY: ZAILNG PARE: <UNKNOWN-
AGENT PARE: ZAILNG PARE: ZAILNG PARE: <UNKNOWN-
AGENT PARE: ZAILNG PARE: ZAILNG PARE: <UNKNOWN-
AGENT PARE: ZAILNG PARE: ZAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.
                                                                                     ADDRESSEE: INCYTE PHARMACEUTICALS, STREET: 3174 PORTER DRIVE CITY: PALO ALTO STATE: CALIFORNIA
COMPOSITION FOR THE GENE EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 70.9%; Score 2689.6; Best Local Similarity 99.9%; Pred. No. 0; Matches 2692; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 37,071
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 845-0555
TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 928:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; CLONE: 91311504
; SEQUENCE DESCRIPTION: SEQ ID NO: 928
US-10-641-643-928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 2714 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
FITLE OF INVENTION:
                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                492
```

셤

ሯ

g

ઠે

요

ð

셤 ઠે g Š

ò

NURR

```
APPLICANT: Wurphy, Evelyn
APPLICANT: Breanian, Barry
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Fitzgerald, Oliver
TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the 1
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
FILE REFERENCE: PO1972US1
CURRENT APPLICATION NUMBER: US/09/853,386
CURRENT FILING DATE: 2001-05-11
PRIOR APPLICATION NUMBER: US 60/203645
REIOR FILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 153
SOFTWARE: Patentin version 3.1
SEQ ID NO 47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCCTTCCGGGACAGCAGCTGTGACTCTCCCCCAATCCAGATTTCGGGGTCGCTCTCTA 479
339 ACAGCCCAAGCCAGGACGCCCGCGGAACCTCTCGGCTGTCTCCCATGAGTCGGGATC 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAACTCGCTCTAAAGACGGACACCGCCACAGCACTCAAAGCCCACTGCGGGAAGAGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCGGCAAGCCCGGGCCCTGACCTGACCCTTAGCGGTGCCGGGCAGCA-----CTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCCTTCCGGGACAGCGGTGTGACTCCCCCCAGTGCAGATTTCGGGACAGCTCTCTA
                                                                                                                                                                                                                                                                                                                                                                                                        GCTCCGCACACACT - - TCGCTCTCCCGCGCGCTCACACCCCTTTGCCCTTGAGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCGGT-----GCAGCGCGGCGGCGGCTGGACGCCCCTCCCGGGGCTCACTTTGCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGGTGTCGCGCGCGCGCGCGCCGCAGCCGGACCCCCTCCAGGGCTCACTTTGCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 craacegraccaccagecegracageageragaaacagegegegarecreececeregre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301 GCAGCCGGAGACTGGACG-CTGCGGAACCTCTCGGCGCGCTCTCCCATGAGTTGGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCAGCATCCCCCACCAGCC---GCTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGC
                                                                                                                                                                                                                                                                                                                                                                  90;
                                                                                                                                                                                                                                                                                                                         Length 4400;
                                                                                                                                                                                                                                                                                                                         Score 2500; DB 9; Length 4
Pred. No. 0;
0; Mismatches 535; Indels
                                                                                             ; Sequence 47, Application US/09853386; Patent No. US20020049151A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                           Query Match 65.9%;
Best Local Similarity 83.4%;
Matches 3131; Conservative (
                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                                                                           LENGTH: 4400
                                                                              RESULT 11
US-09-853-386-47
                                                                                                                                                                                                                                                                                                         US-09-853-386-47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                      46
                                                                                                                                                                                                                                                                                                                                                                                          Н
                                                                                                                                                                                                                                                                                                                                                                                                               106
                                                                                                                                                                                                                                                                                                                                                                                                                                                      166
       2599
                          2772
                                                2659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                         셤
        윤
                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2531
                                                                                                                                                                                    1818
                                                                                                                                                                                                        1991
                                                                                                                                                                                                                           1878
                                                                                                                                                                                                                                                                    1938
                                                                                                                                                                                                                                                                                       2111
                                                                                                                                                                                                                                                                                                                               2171
                                                                                                                                                                                                                                                                                                                                                    2058
                                                                                                                                                                                                                                                                                                                                                                         2231
                                                                                                                                                                                                                                                                                                                                                                                            2118
                                                                                                                                                                                                                                                                                                                                                                                                                2291
                                                                                                                                                                                                                                                                                                                                                                                                                                     2178
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2411
                                                                                                                                                                                                                                                2051
                                                                                                                                                                                                                                                                                                             1998
                                                                               1811
                                                                                                   1698
                                                                                                                        1871
                                                                                                                                           1758
                                                                                                                                                                1931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CIGCTIGCIACGCAGCAAAGGGAIAGGTIIGGAAACCTAICAITTCCIGICCITICAIAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCTTGCTACGCAGCAAAGGGATAGGTTTGGAAACCTATCATTTCCTGTCCTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2419 CTICTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACACCCTACCTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCTCCTCTCCTAGCAC
                                                                                                                                                                                                                                                                                                    ACTITICCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                 GCATCGACTTCAGTGCCTTCGTGGATTTGGGGAGTGGCTCGACTCTATTAAAGACTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                            2119 GCATCGACTTCAGTGCCTTCGTGGATTTGGGGGAGTGGCTCGACTCTATTAAAGACTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCTATGCAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATCACAAGGAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCACGGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCACAAGCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAGGTCCTGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACTTCCATTGACAAGCTCTTCCT
                                                                                                                                                                                                                                                                                                                                CCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTTGGAGCTGTTTGTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                     CACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCCT
                                                                               AAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGT
                                                                                                                      TGTCCGTACAGATAGTCTGAAAGGGAGGAGGTCGTCTGCCTTCCAAACCAAAGAGCCC
                                                                                                                                    ATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGATGAATGC
                                                                                                                                                                          CCTTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATACTGTCC
                                                                                                                                                                                                                 GACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATCT
       GAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGGACGTCG
                                                  2539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2652
                                                                                                                                                                                                                                                                                                                                                                            2172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2532
                                                                                                                                                                                                                                                                                                                                    2112
                                                                                                                                                                                                                                                                                                                                                                                                                    2232
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2292
                                                                                                                                                                                                                                                                                                                                                        1999
                                                             1579
                                                                                                       1639
                                                                                                                            1812
                                                                                                                                                                   1872
                                                                                                                                                                                        1759
                                                                                                                                                                                                            1932
                                                                                                                                                                                                                               1819
                                                                                                                                                                                                                                                    1992
                                                                                                                                                                                                                                                                        1879
                                                                                                                                                                                                                                                                                            2052
                                                                                                                                                                                                                                                                                                                1939
                      1519
                                                                                    1752
                                                                                                                                                1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                 ò
                                                            qq
                                                                                    ò
                                                                                                     g
                                                                                                                           8
                                                                                                                                            g
                                                                                                                                                                   δ
                                                                                                                                                                                    요
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                    ò
                        셤
                                           ò
```

165

9

180

278 240 338

223

300

359

455 419 575

539

515

```
419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               599
                                                                                                                                                                                                                                                                                                                        278
                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                             105
                                                                                                                                                                                                                                                                                                                                                                      GCTCCGCACACACACA---TCGCTCTCCCGCGCTCACACCCCTCTTGCCCTGAGCCCTT 223
                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGCCCAAGCCAGGACCCCGCGGAACCTCTCGGCTGTCCCCATGAGTCGGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAACTCGCTCTAAAGACGGAAACCGCCACACACACAAAAGCCCACTGCGGAAGAGGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCGGCAAGCCCCGGGCCCTGGACCCTTAGCGGTGCCGGGCAGCA-----CTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGGTTGGCTGGCGGAGGTCGGTCTCTACACTCTCAGCTCGGTGGAGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600 GGCTGCTTCGCCTATCCCGACGTCCCGCCTCCTACACTCTCAGCCTCCGCTGGAGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                    301 GCAGCCGGAGACTGGACG-CTGCGGAACCTCTCGGCGGCGCTCTCCCATGAGTTGGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAGCATCCCCCACCAGCC---GCTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360 GCAGCAICCCCAGCCAGCCGCTGCTCCACGCAGCCGCTGGGGTTTGTGCACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCCTTCCGGGACAGCTGTGACTCCCCCCAGAGTTTCGGGACAGCTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                      GCCGGT-----GCAGCGCGCGCGCAGCTGGACGCCCCTCCCGGGCTCACTTTGCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGACGGCGCCGCCGTGGAGGGGGAACAGCGGGGGTCCTCCCCCCTGGTC
                                                                                                                                                                                                                                                                                          1 CCGAGTCTCCTGCCTCCCGCCCCCCCTCCAGCGCCTGCTCCTCCGCTCCCCAT
                                                                                                                                                                                                                                                       90;
                                                                                                                                                                                                                                Length 4400;
                                                                                                                                                                                                                                                                               CGGAGTCTCCTGCCTCCCCCCCCCCCCCTCCAGCTCCTGCTCCTCC
                                                                                                                                                                                                                                                        Indels
                              NOR1
                                                                                                                                                                                                                                 DB 13;
                                                                                                                                                                                                                                                        0; Mismatches 535;
      APPLICANT: Guenther, Catherine
APPLICANT: Allen, Keith D.
TITLE OF INVENTION: TRANSCENIC MICE CONTAINING NOR
TITLE OF INVENTION: DISRUPTIONS
TITLE OF INVENTION: DISRUPTIONS
FILE REPRENCE: R-687
CURRENT APPLICATION WUBBE: US 0/251,794
PRIOR APPLICATION NUMBER: US 60/251,794
PRIOR APPLICATION NUMBER: US 60/324,614
PRIOR PILING DATE: 2000-12-06
PRIOR FILING DATE: 2001-09-24
PRIOR FILING DATE: 2001-09-24
NUMBER OF SEQ ID NOS: 6
SOFTWARE: PASSEE for Windows Version 4.0
SOFTWARE: AAAAA
                                                                                                                                                                                                                                 Score 2500;
Pred. No. 0;
                                                                                                                                                                                                                                Query Match 65.9%;
Best Local Similarity 83.4%;
Matches 3131; Conservative 0
                                                                                                                                                                                     TYPE: DNA
CRGANISM: ratus norvegius
US-10-005-169-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  516 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                  46
                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        279
                                                                                                                                                                                                                                                                                                                                                                              166
                                                                                                                                                                                                                                                                                                                                                                                                                           224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8, 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3710
                                                                                                                                                                                                                                                             3110
                                                                                                                                                                                                                                                                                                         3170
                                                                                                                                                                                                                                                                                                                                  3233
                                                                                                                                                                                                                                                                                                                                                         3230
                                                                                                                                                                                                                                                                                                                                                                                                      3290
                                                                                                                                                                                                                                                                                                                                                                                                                              3353
                                                                                                                                                                                                                                                                                                                                                                                                                                                     3350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATTACATGTAACTGTTTTGGTTGTGT-TCTATCAACCCCACAGAGTTCCCTAAACTTG 3522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3591 cdarchaggerranccraggagaacargcaaraacaacaacaacaacaacaacaacaagaaa 3650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3173
                                                                                                                                                                                                                                                                                                                                                                               TGTCTTACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAAGGGGC 3293
                                                                                                                  2931
                                                                                                                                        3006
                                                                                                                                                                                         3065
                                                                                                                                                                                                               3051
                                                                                                                                                                                                                                      3113
                                                                     2871
                                                                                                                                                                2991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3414 CCC------TGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3411 ACCCTCCCTCAACCATGACTATCCAGATGTCCTGAATGGGGATCAGGTTATAAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCAGTTATAGTAACTGACTGGTATATTCATTCAGAAGC-----GCCATAAGTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACT-GGTCATACAGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTCTGTTCACCTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGATGGGGTGGGAGGGT--TATAGTTCATGAGGGTTTTCTAAGAAATTGCTAACAAAG
                                                                                                          AAAA - - CTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACAGCC
                                                                                                                                                       2932 AAAAACTCTTTCCGGGGGAATATGACTATGGTTGCTTTGTATTTAAAATAAGAACAGCC
                                                                                                                                                                                        AAGGGTTG-TTCGCCAGGGTAGGATGTCTTAAAGATTGGTCCCTTGAAAATATGCTTC
                                                                                                                                                                                                      AAĞĞĞCIĞITİTAÇCAĞĞĞĞİAÇĞĞCCIGTGTCTTAAAĞACTGATCCCTTTAGTATGTACTTC
                                                                                                                                                                                                                                                     3114 TAATTTCCTTCTTCCTTTATTTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCA
                                                                                                                                                                                                                                                                                                                                 GACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTAAAGTGC
                                                                                                                                                                                                                                                                                                                                              2812 GGGTGGGCTGGGAGGGGGAAAATAGTTCATGAGGCTTTTTCTAAGAAATTGCTGAGGGAAG
                                                                                           CACTITIGGACAATGCTATCCCAGCAG-----GAAAAAAAAGGATAATATAACTGTTTT
                                                                                                                                                                                                                                        ctrictrctraaaataaatiggcaaaaaaaaaaaagatggaagartarctacaaatca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTAAGGAGACAATTTTGGAGGAGGCAAGCAAATCTTTT 3723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTA--TAGACAATTTTGGAAAGCAAGAGAATCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3523
                                                                                                2895
                                                                                                                                               2949
                                                                                                                                                                                             3007
                                                                                                                                                                                                                    2992
                                                                                                                                                                                                                                                                  3052
                                                                                                                                                                                                                                                                                                                                      3174
                                                                                                                                                                                                                                                                                                                                                            3171
                                                                                                                                                                                                                                                                                                                                                                                    3234
                                                                                                                                                                                                                                                                                                                                                                                                                                    3294
                                                                                                                                                                                                                                                                                                                                                                                                                                                         3291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3464
                                                  2837
                                                                                                                       2872
                                                                                                                                                                                                                                           3066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
```

g

g ò

6 8 6

셤 ò g ò g ò g

g ò 셤 ò

셤 ò 8 8 8

ò

à

8

22;

RESULT 12 US-10-005-169-3 Sequence 3, Application US/10005169 ; Publication No. US20020152492A1

689 629 749 719 750 ATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGCGCAGACATACAGCTCGGAATACAC 809

유 ð

ID NOS: 36

g

g

셤 ઠે g ò

ò

g ઠે g ઠે 임 ò 셤 8 셤 ò 임 ò 엄 δ 원 ò

ઠે

```
224
                                                                                                                                                                                                                                                         181
                                                                                                                                                                                            166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                     qq
                                                                                                                                                                                                          g
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                  8 &
                                                                                                                                                                                                                                                                                            8
8
                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                          ద
                                                                                                                                                 ð
                                                                                                                                                                                           ò
                                                                                                             ò
                                                                                                                                        3170
                                                                                                                                                                                   3230
                                                                                                                                                                                                                          3290
                                                                                                                                                                                                                                               3353
                                                                                                                                                                                                                                                                   3350
                                                                                                                                                                                                                                                                                      3413
                                                                                                                                                                                                                                                                                                   3411 ACCCTCCCTCAACCCATGACTATCCAGATGTCTGAATGGGGATCAGGTTATAAAATG 3470
                                                                                                                                                                                                                                                                                                                                                                                           3530
                                                                                                                                                                                                                                                                                                                                                                                                                3575
                                                                                                                                                                                                                                                                                                                                                                                                                                   3590
                                                                                                                                                                                                                                                                                                                                                                                                                                                       3634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3710
                                        3065
                                                                                                                       3173
                                                                                                                                                                3233
                                                                                                                                                                                                        3293
                                                                                                                                                                                                                                                                                                                               CCC-----TGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTG 3463
                   2991
                                                           3051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTACATGTAACTGTTTTGGTTGTGT-TCTATCAACCCCACAGAGTTCCCTAAACTTG
                                                                                                                                                                                                                                                                                                                                                                                   TGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACT-GGTCATACAGGGTA
                                                                                                                                                                                                                                                                                       CGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCAGTTATAGTAACTGACTGGTATATTCATTCAGAAGC------GCCATAAGTCAGT
AAAA--CTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACAGCC
                                                     CTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAA------CTTCCTTT
                                                                                                                        TAATTTCCTTCTTCCTTTAATTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCA
                                                                                                                                                                GACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGC
                                                                                                                                                                                   GACTTAGCAAAATGATAATGGCTATTCGCTTCCACATACAAGTGCAATTTTTTAGAGTGC
                                                                                                                                                                                                        TGTCTTACTAAGTCTTGTTTAATTAACTCTTTTATTCTATATGGAAATAAAAGGAGGC
                                                                                                                                                                                                                   AGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Application US/10414080
; Publication No. US20030220288A1
; GENERAL INFORMATION:
   APPLICANT: MULLICAN, SHANNON E.
; APPLICANT: CONNELY, ORLA M.
; APPLICANT: MILBRANDT, JEFFREY
; TITLE OF INVENTION: NOR-1 AND NUR77 NUCLEAR RECEPTORS AS TARK
; TITLE OF INVENTION: ANTI-LEUKEMIA THERAPY
; FILE REFERENCE: P02454US1
; CURRENT APPLICATION NUMBER: US/10/414,080
; CURRENT FILING DATE: 2003-04-15
; PRIOR APPLICATION NUMBER: 60/373,238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTAAGGAGACAATTTTGGAGGAGCAAGCAAATCTTTT 3723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTA--TAGACAATTTTGGAAAGGAAGAATCATCT 3744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-10-414-080-2
                      2932
                                                              2992
                                                                                                                          3114
                                                                                                                                                                                      3171
                                                                                                                                                                                                                                                                      3291
                                                                                                                                                                                                                                                                                          3354
                                                                                                                                                                                                                                                                                                              3351
                                                                                                                                                                                                                                                                                                                                   3414
                                                                                                                                                                                                                                                                                                                                                                          3464
                                                                                                                                                                                                                                                                                                                                                                                            3471
                                                                                                                                                                                                                                                                                                                                                                                                                   3523
                                                                                                                                                                                                                                                                                                                                                                                                                                     3531
                                                                                                                                                                                                                                                                                                                                                                                                                                                          3576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3711
                                                                                                      3052
                                                                                                                                               3111
                                                                                                                                                                 3174
                                                                                                                                                                                                          3234
                                                                                                                                                                                                                             3231
                                                                                                                                                                                                                                                 3294
                                           3007
                                                                                   3066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

à

```
240
                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                          398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            929
                                                                                                                                                                       120
                                                                                                                                                                                                             180
                                                                                                                                                                                                                                278
                                                                                                                                                                                                                                                                      338
                                                                                                                                                                                                                                                                                                                             359
                                                                                                                                                                                                                                                                                                                                                455
                                                                                                                                                                                                                                                                                                                                                                  419
                                                                                                                                                                                                                                                                                                                                                                                      515
                                                                                                                                                                                                                                                                                                                                                                                                       479
                                                                                                                                                                                                                                                                                                                                                                                                                           575
                                                                                                                                                                                                                                                                                                                                                                                                                                             539
                                                                                                                                                                                                                                                                                                                                                                                                                                                               629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 977
                                                                                                               105
                                                                                                                                                    165
                                                                                                                                                                                         223
                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACGGAGATCATGAACCCCGGACTACCAAGCTGACCATGGACCTTGGCAGCACTGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cacegeracacecacerecereceasearcasearearacerreseaseasease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      930 CAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAG-------CGGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                          GAAACTCGCTCTAAAGACGGAAACCGCCACAGCACTCAAAGCCCACTGCGGAAGAGGGCAG
                                                                                                                                                   CTGACGGTGCCGGCÀGTGGCCGTGGAACGTGGGAACACGGGCGGCATCCTCCCCCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ceacectroeccroecacercecrocrocracycracycrocrosectroeccroecroecy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600 GGCTGCTTCGCCTATCCCGACGTCCCGCCTCCTACACTCTCAGGCTCCGCTGGAGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCCAGCCCCACCATTCAGCGCGCAACATACCCTCCAGATATGCCCTGCGTCCAAGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATATAGCCCTTCCCCTCCCAGGTTCCAGTTATAGCGGCAGACATACAGCTCGGAATACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGCCCAAGGCCAGGACGCCCGCGGGAACCTCTCGGCTGTGTCCCCATGAGTCGGGATC
                                                                                                                                                                                                                                                                                                                     AGCCCTTCCGGGACAGCAGCTGTGACTCCCCCCAGTGCAGATTCGGGACAGCTCTCTA
                                                                                                                                                                                                                                                                                                                                                                                                  CCCGGCAAGCCCCGGGCCCTGGACCCTTAGCGGTGCCGGGCAGCA-----CTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGGT-----GCAGCGCGCGCCGCAGCTGGACGCCCCCCGGGCTCACTTTGCAACG
                                                                                                                                                                                                                                                                                                                                                 GCAGCATCCCCCACCAGCC---GCTCACCGCCTCCGGGAGCCGCTGGGCTTGTACACCGC
                                                                                                                            ccadarcicrectectectectectectectett
                                                                                            90;
                                                                                                                 Length
                                                                                              Indels
                                                                          Score 2500; DB 17;
Pred. No. 0;
0; Mismatches 535;
                                                                         65.9%;
Best_Local Similarity 83.4%;
Matches 3131; Conservative 0
  SEQ ID NOS: 36
PatentIn Ver.
; NUMBER OF SEQ III
; SOFTWARE: Patenti
; SEQ ID NO 2
; LENGTH: 4400
; TYPE: DNA
; CRGANISM: RAT
US-10-414-080-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                        106
                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                              339
                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                516
                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                069
                                                                                                                   46
                                                                                                                                    ٦
                                                                                                                                                                                                                                                                        279
                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                   399
                                                                                                                                                                                                                                                                                                                                                                                         456
                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TARGETS
```

```
유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                       셤
                                                                                                                                                                               엄
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                            \dot{\delta}
                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                  셤
                                                                                                                                                           ò
                                                                                   ð
                                                                                                                        ò
                                                                                                                                    3350
                                                                                                                                                      GATTACATGTAACTGTTTTTGGTTGTGT-TCTATCAACCCCACCAGAGTTCCCTAAACTTG 3522
                                                                                                                                                                                                                                              CTTCAGTTATAGTAACTGACTGGTATATTCATTCAGAAGC-----GCCATAAGTCAGT 3575
                                                                                                                                                                                                                                                                                                                                  3650
                                                                                                                                                                                                                                                                                                                                                    TGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACT-GGTCATACAGGGTA 3634
                                                                                               3290
                                                                                                                 3353
                                                                                                                                                                                               3463
3173
                3171 GACTTAGCAAATGATAATGGCTATTCGCTTCCACATACAAGTGCAATTTTTTAGAGTGC 3230
                                                                                                                                                                                                                                                                                                                            CCC------TGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTG
                                                                                                                                                                                                                                                                                            3114 TAATTTCCTTCTTCCTTTATTTTAACAAATGGTGAAAGATGGAGGATTACCTACAAATCA
                                      GACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGC
                                                                           TGTCTTACTAAGTCTTGTTTATTAACTCTCTTTATTCTATATGGAAATAAAAAGGAGGC
                                                                                       AGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INCOMMATION:

APPLICANT: MENDRICK, Donna
APPLICANT: PORTER, Mark
APPLICANT: TOANSON, Kory
APPLICANT: HIGGS, Brandon
APPLICANT: GASTLE, Arthur
APPLICANT: ELASHOFF, Michael
TITLE OF INVENTION: Cardiotoxin Molecular Toxicology Modeling
FILE REFERENCE: 44921-5090US
CURRENT FILING DATE: 200-70-10
FRICH APPLICATION NUMBER: US 60/303,819
PRIOR FILING DATE: 2001-07-10
PRIOR FILING DATE: 2001-07-10
PRIOR FILING DATE: 2001-07-17
PRIOR FILING DATE: 2001-07-17
PRIOR FILING DATE: 2002-05-06
NUMBER OF SEQ ID NOS: 1140
SOFTWARE: PATENTIN VOY: 2.1
SEQ ID NO 209
LENGTH: 4400
                                                                                                                                                                                                                                                                                                                                                                                                        TTA--TAGACAATTTTGGAAAGCAAGAGAATCATCT 3744
                                                                                                                                                                                                                                                                                                                                                                                             TTAAGGAGACAATTTTGGAGAGCAAGCAAATCTTTT 3723
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 209, Application US/10191803
Publication No. US20040014040A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
US-10-191-803-209
                                                                                                 3231
                                                                                                                    3294
                                                                                                                                       3291
                                                                                                                                                                                                 3414
                                                                                                                                                                                                                    3411
                                                                                                                                                                                                                                       3464
                                                                                                                                                                                                                                                                             3523
                                                                                                                                                                                                                                                                                                 3531
                                                                                                                                                                                                                                                                                                                   3576
                                                                                                                                                                                                                                                                                                                                      3591
                                                                                                                                                                                                                                                                                                                                                          3635
                                                                                                                                                                                                                                                                                                                                                                                               3688
                                                                                                                                                                                                                                                                                                                                                                                                                 3711
                                        3174
                                                                              3234
                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                        g
                                                                                             g
                                                                                                                    ð
                                                                                                                                      g
                                                                                                                                                          ò
                                                                                                                                                                          g
                                                                                                                                                                                                 δ
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                         8
                                                                              ò
                    염
                                       ò
```

```
455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACGGAGATCATGAACCCCGACTACACCAAGCTGACCATGGACCTTGGCAGCACTGAGAT 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        278
                                                                                                                                                                                                                                                                                                                                  CTGACGGTGCCGGCAGTGGCCGTGGAGGTGGGAACAGCGGCGGCATCCTCCCCCCTGGTC 338
                                                                                                                                                                                                                                                                                                                                                                                      398
                                                                                                                                                                                                                                                                                                                                                                                                              359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600 GGCTGCTTTCGCCTATCCCGACGTCCCCGCCTCCTACACTCTCAGCCTCCGCTGGAGAGAC 659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                660 CCCCAGCCCCACCATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGCGTGCAAGCCCA 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATATAGCCCTTCCCAGGTTCCAGTTATGCGGCGCAGACATACAGCTCGGAATACAC 809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   839
                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                         105
                                                                                                                                                                          223
                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACGGCTACAGCCACCACCAGCTCCCTGCCAGCATCAGTACCTTCGTGCAGGGCTACTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAG------CGGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                    ACAGCCCAAGCCAGGACGCCGCGGAACCTCTCGGCTGTGCTCCCCATGAGTCGGGATC
                                                                                                                                                                                                                                                                                                                                                                                                   301 GCAGCCGGAGACTGGACG-CTGCGGAACCTCTCGGCGGCGCTCTCCCATGAGTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCCCTTCCGGGACAGCTGTGACTCCCCCCCAGTGCAGATTTCGGGACAGCTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAACTCGCTCTAAAGACGGAACCGCCACAGCACTCAAAGCCCCACTGCGGAAGAGGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         630 caacactroaccroaccaacarcacrocrocracacroraaccroaccroacaaaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  690 ccccagccccaccarragegegegaagaracccrccagarargcccrgggrccaa
                                                                                                                                                                                                                                                                                              241 CTGACAGAGGGGGCGTGGAGGGGGGAAACGTGGGGGACATCCTAGCCCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCGGCAAGCCCCGGGGCCCTGGACCCTTAGCGGTGCCGGGCAGCA-----CTGC
                                                                                                                                                                                                                                                                                 GCCGGT-----GCAGCGCGCGCGCCGCTGGACGCCCCTCCCGGGCTCACTTTGCAACG
                                                                                                                                                                                                                               GCTCCGCACACACT--TCGCTCTCCCGCGCGCTCACACCCCTCTTGCCCTGAGCCCTT
                                                                                                                          CGGAGTCTCCTGCCTCCCGCCCCCCACCCCTCCAGCTCCTGCTCCTCCTCCGCTCCCCAT
                                                                                                                                        US20040014040A1 NM_031628
                                                                                                  90;
                                                                        Length 4400;
                                                                                                  Indels
                                                                      Score 2500; DB 17;
Pred. No. 0;
0; Mismatches 535;
; TYPE: DNA; ORGANISM: Rattus norvegicus; FATUNE:; OTHER INFORMATION: Genbank Accession No. US-10-191-803-209
                                                                         Query Match 65.9%;
Best Local Similarity 83.4%;
Matches 3131; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            810
                                                                                                                                                                                                                                                                                                                                                                                           339
                                                                                                                                                                                                                                                                                                                                                                                                                                            399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 516
                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                      224
                                                                                                                                                                                                                                                                                                                                       279
                                                                                                                                                                                                                                   166
                                                                                                                              46
```

	2634 ATTAAGGGGAAGGATGGGTTGAACACCT-GCCCTCTACTCTTCTCCTCAGGGGA 2692 2717 AAAGCAGCTCCTGAGAAAGCAAAGACTTTTTTTTTCTGGCTCTTTTCTTACAACC 2776 2693 AAAGCAGCTCCCTAGAAAGCAAAGACTTTTTTTTTCTGGCTCTTTTCTTACAACC 2751 2777 TAAAGCCAGAAACCTTGCAGAGTATTGTTTTTTTTCTGGCACCTTTTTTTAGGATTGGG 2836 2752 TAAAGCCAGAAACCTTGCAGAGTATTGTTTGTTTAGTTTTAGGATTGGG 2836 2752 TAAAGCCAGAAACCTTGCAGAGTATTGTTGTTGGTTTTTTATTTTAGGCATTGGG 2836 2752 TAAAGCCAGAAACCTTGCAGAGTATTGTTGTTGTTTATTTTAGGCATTGGG 2836 2837 GGATGGGGTGGAGGGGTAATTGTTGTTGGGGTTTTTTATTTTAGGCATTGGG 2831 2837 GGATGGGGTGGAGGGGTAAATTGTTGTGGGGTTTTTTATTTTAGGCATTGGT 2831 2837 GATTGTGAAAAATTGTTCAGAGGTTTTTTTATTTTAGGCATTTTT 2948 2832 CACTTTTGGACGGGGGTAAAATAGTTCATGAGGGTTATTTAAAAATAAAT
6 4 6 4 6 4 6 4 6 4 6 4 6 4 6 4 6 4 6 4	4 5 4 5 4 5 4 5 4 5 4 5
-	· · · · · · · · · · · · · · · · · · ·
978 GATCAAAGTGGAGGGGGGGCCCCAGCTACCATCACCACCACCACCACCACCACCACCACCACCAC	GAGCTCGTCGTCGGCGGGGGCACGTGTCCGTGTGGGGGGACAAGGCCCGCCGCACGCA

```
1021 TCAGGCGAGGGACGTGCGCCGTGTGCGGGACAACGCCGCCTGTCAGCACTATGGCGTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAACCTGCGAGGGCTGCAAGGGCTTTTTCAAGAGAACAGTGCAGAAAAATGCAAAAATTT 1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1528 GCGTCCAGCCTGCTGGGCGAGAGTCCCAGCCTGCCGTCGCCGCCCAGCAGGAGCTCGTCG 1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961 ACGICCAGCCTACTGGGCGAGAGCCCCAGCCTGCCGTCTCCGCCCAACAGAGCACCGCG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                               ---CGGCCCTTGATCAAAGTGGAGGAGGGCGGCGCCCAGCTACCATCACCATCACCAC
                                                                                                                                                                                                                                                                                                                                                                                                     301 decracicada de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constante de la constant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841 GCCGCCGCCGCCGCAGCAGTCAGGCCGCCGCGCTCGAGGGCCACCCGTACGGGCTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCATGTACTTCAAGCAGTCCCCACGGTCACCCCCACGACGCCGGCCTTCCCCCCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACTICAAGCCCTCGCCGCCGCATCCGCCGCGCCCCAGCCCCGCCGGCGGCGCCACCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1411 --- GCAGCCGCCGCGGCCAGCCAGGCCGCCGCTTGAGAGCCACCCGTACGGGCTGCCG
                                                                                                                                                            TOGGAATACACCACGGAGATCATGAACCCCGACTACACCAAGCTGACCATGGACCTTGGC
                                                                                                                                                                                                                                      AGCACTGAGATCACGGCTACCACCACCACCAGCCAGCATCAGTACCTTCGTGAG
                                                                                                                                                                                                                                                                                                                                                                       GGCTACTCGAGCAACTACGAACTCAAGCCTTCCTGCGTGTACCAAATGCAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGGGGGCGTTATGGGACGAGGCACTGCCCTCGGCGCCCGGCTGCATCGCACCCGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACTICAAGCCCICGCCGCCGCATCCCCCCGCGCCCGGCCGGCCGGCCGGCCACCTC
                                                                                  61 GCTGGAGAGCCCCCACCCACCATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGC
                                                                                                                                        GTCCAAGCCCAATATAGCCCTTCCCAGGTTCCAGTTATGCGGCGCAAATACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    --- CAGCAGCCATCCATTCCTCCAGCCTCCAGCCGGGAGGACGAGGTGCTGCCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCTACGACCCGCGCCGCTGCCGCGCTCCAGCCTGCCGCTGGGAGCC------
CACCACCACCACCACCACCATCACCAGCAGCAGCAT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1468
                                                                                                                                                                                                                                                                                                                                                                           919
                                                                                                                                                                                                                                                                                                                                                                                                                                                     970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                 859
                                                                                                                                                                                121
                                                                                                                                                                                                                        799
                              Н
                                                                619
                                                                                                                                              739
                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                      g
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                     요 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 면 상 면
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                  g
                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                               à
                                                          8
                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Breanian, Barry
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICANT: Conneely, Orla
APPLICATION INMER: US/09/853,386
CURRENT FILING DATE: 2001-05-11
CURRENT APPLICATION NUMBER: US/09/853,386
CURRENT FILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 153
SEQ ID NO S: 153
LENGTH: 5115
                                                                                                                                                                                                                                                                                                                       3470
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATTACATGTAACTGTTTTGGTTGTGT-TCTATCAACCCCACCAGAGTTCCCTAAACTTG 3522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3353
                                                                                                                                                                                                                                                            3350
                                                                                                                                                                                                                                                                                                   3413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3293
                                                                                                                                                                                  3290
                                                                                                                                                                                                                                                                                                                                                                               3463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 619 GGCAGCACTGCCGGCGTTCGCCTCGCCGGACGTCCGCTCCTCCTACACTCTCAGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                   CGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAACCAGAT
                                                                                                                                                                                                                                                                                                                                                                               CCC-----TGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCAGTTATAGTAACTGACTGGTATATTCATTCAGAAGC-----GCCATAAGTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        crtragrigiagcaagriccigariccicaricagaagcccaaggagcarigggigacr
                                                                    GACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTTAAAGTGC
                                                                                                                                                TGTCTTACTAAGTCTTGTTTATTAACTCTTCTTTATTCTATATGGAAATAAAAGGAGGC
                                                                                                                                                                                                                          AGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACCTTCCCTGT
                                                                                                                                                                                                                                                              TGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACT-GGTCATACAGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 9; Length 5115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTAAGGAGACAATTTTGGAGGAGCAAGCAAATCTTTT 3723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTA--TAGACAATTTTGGAAAGCAAGAGAATCATCT 3744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 2371; DB 9;
Pred. No. 0;
0; Mismatches 295;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 87.4%;
Matches 2832; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Sus scrofa
US-09-853-386-57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3ULT 15
.09-853-386-57
                                                                                                                                                                                                                            3294
                                                                                                                                                                                                                                                                  3291
                                                                                                                                                                                                                                                                                                                                                                                                                                                           3464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3711
                                                                                                                                                  3234
                                                                                                                                                                                                                                                                                                       3354
                                                                                                                                                                                                                                                                                                                                                                                 3414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3471
                                                                    3174
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                      g
                                                                                                                                                                                g
                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                ઠે
                                                                      8
```

840

1467

900

1527

960

ઠે

1362

780

1065

300 696

180 828 240 918

120 798

738 9

1122

1182

1242

1302

720

TITCCTRAALCTRAACCTAAACCTAAACCTACAAACTTGCAGGATTTGTTTGT
. 8 4 8 4 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6
1001   CGCACCTGCGGAGGCCTGCAAGGAGCTCCAAGAGCCCTGCAAAAAATGCCAAAAAATTCTAAGAATTCTCAAGACTTCCAAGACTTCCACAAATAAAAAAATTCCCAAAAAAAA

Search completed: March 22, 2005, 01:21:50 Job time : 2024 Becs

```
March 21, 2005, 08:40:51; Search time 11544 Seconds (without alignments) 12510.034 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ataaatgacgtgccgagaga......gtgtgagtactaggaaggat 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   68479088
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34239544 seqs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                   OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-608-863-1
3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9b est1:

9b est2:

9b est4:

9c est4:

9c est6:

9c est8:

9c est
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                            Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

AJ814207 AJ814207
BM557376 AGENCOURT
BM57313 AGENCOURT
CK778210 965365 NA
CB44522 AGENCOURT
CK778210 965365 NA
CB4452379 726652 NA
CB445379 726652 NA
CB445379 726652 NA
CB445379 726652 NA
CB45379 726652 NA
CB45571 AGENCOURT
CD522275 AGENCOURT
CD52225 AGENCOURT
CB45564 696928 NA
CK635592 UI M-NNOCB45564 696928 NA
CC536097 UI-M-GIOBK9252420 AGENCOURT
CF536097 UI-M-GIOBK925243 BK925243
CC536097 UI-M-GIOBK925243 BK925243
AY417753 HOMO SAPI
AY417753 HOMO SAPI
AY417753 HOMO SAPI
AY417753 HOMO SAPI
AY417753 HOMO SAPI
AY417753 HOMO SAPI
AY417753 HOMO SAPI
AY417753 HOMO SAPI Description SUMMARIES AJ814207 BM557376 BQ431513 BQ431513 BQ431513 CCK778210 CCK778210 CCM465379 CCM467379 CCM467379 CCM44741 CCM3379 CCM44777 CCM447777 CCM445564 CCM445564 CCM44564 CCM4464 uery Match Length DB 879.8 879.8 752.4 752.4 696.4 627.8 617.2 597.2 593.5 583 583 583 583 583 583 583 583 524.4 5220.4 518.2 518.2 514.8 495.4 488.8 Result No. 22220011111111000015 2222001111111111000015

AI145834 UI-R-BTO-AK087495 MUS muscu BF604409 270232 MA CR548029 DKF2p459N N40404 yx89506.rl A1911092 wd23512.x BG23565 naf19h02. AX417754 Pan trog1 BB758614 BB758614 BF019466 Ux.Noe11.y AW490399 UI-M-BH3-AW490399 UI-M-BH3-AV645408 AV645408 AV645408 AV645902 AV645902 CR555248 DKF2p459B CR555348 DKF2p459B CR555348 DKF2p459B CR55540 UI-M-BH2. BE648142 UI-M-BH2. BE648142 UI-M-BH2. BC59032641 CM2-CN006 CR590328 full-leng	το.	AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  AJ814207  EDG  EDG  EDG  EDG  EDG  EDG  EDG  ED	1; Length 996;	e-202; 48;
1 AI145834 3 AK087495 2 BF604409 7 NA648239 7 NA648239 1 AI911092 1 AI911092 9 AY41754 9 AY41754 2 BF019466 2 AW490389 1 AV45802 1 AV645902 1 AV645902 1 AV645902 1 AV645902 1 AV645902 1 AV645902 1 AV645408 1 AV645408 1 AV645408 1 AV645408 1 AV645902 1 A	ALIGNMENTS	KN206 BOS SP. CDNA clone C0005204p  1 GI:51881683  2 Metazoa; Chordata; Craniata; Ver Eucheria; Cetartiodactyla; Rumina Bos. 1 to 956)  3 and Glass, E.J. ed ESTS, McGuire and Glass ed (2004) McGuire A and Genetics stitute idlothian, EH25 9PS, UNITED KINGDC ss sequencing. Bases called and trace. Vector identified by cross_mat cac. Vector identified by cross_mat cach 12 options. Vector:pBluescript ost) R. Site 2:Not1 Seq Primer: T7 ed from pooled monocytes from Bos us (Sahiwals) cattle subjected to infection with the protozoan pare 10.000100011fiers 10.001000111fiers 10.001001111684)  /db xref="texon:29061" /clone="C0005204919" /clone="C0005204919" /clone="C0005204919" /clone="Lype="bovine monocyte" /clone="Co005204919" /clone="Lype="bovine monocyte" /clone="Lype="bo	2%; Score 879.8	9%; Pred. No. 1 0; Mismatch
4.8 12.5 2759 11.6 12.2 493 2.2 111.7 478 8.8 111.3 537 8.8 111.3 537 6.4 111.2 1699 8.8 111.3 541 11.2 1699 8.8 111.2 1699 10.9 564 10.9 564 10.1 10.8 500 10.3 390 10.2 483 2.6 9.8 487 2.6 9.8 487 3.8 9.6 407 3.8 9.6 2435 1.2 9.8 528 3.8 9.6 407		AJ814207 AJ814207 AJ814207 AJ814207 AJ814207 AJ814207 AJ814207 BOS SP. BOS SP. BOS SP. BUKATYOLA; MELAZOA; CEE BOVIDAS; BUT HOUDDLISHEE ESTS, MCGUITE, K. and Glass, E. (Unpublished ESTS, MCGUITE ROSIIN, Midlothian, EH2! Songle pass sequencing: VO.020425.c. Vector idea and -minmatch 12 optionn 1:ECORV(lost) R. Site 2 constructed from pooled BOS indicus (Sahiwals) including infection with Location/Qualii 1: 996 ADS ATERITANDES ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ADDIONALISH ANDIONALISH ADDIONALISH ANDIONALISH ADDIONALISH ANDIONALISH ANDIONALI	- F	Similarity 19; Conservat
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		RESULT 1 AJ814207 COUGUS DEPTHITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM TITLE JOURNAL COMMENT FEATURES SOURCE SOURCE AUTHORS TITLE JOURNAL COMMENT	ORIGIN Query Match	Best Local Matches 9

```
mRNA sequence.
5', mRNA
BM557376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2869
                                                            ORGANISM
                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
          ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                1870
                                                                                                                                              1930
                                                                                                                                                                                              1990
                                                                                                                                                                                                                                              2050
                                                                                                                                                                                                                                                                                             2110
                                                                                                                                                                                                                                                                                                                                             2170
                                                                                                                                                                                                                                                                                                                                                                                             2230
                                                                                                                                                                                                                                                                                                                                                                                                                                            2290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2470
                                               1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAAGGICCTGGGIGCCCTGGIAGAACTGAGGAAGAICTGCACCCTGGGCCTCCAGCGCA 2530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATTGACAAGCTCTTCC 2590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2591 TGGACACCCTACCTTTCTAATCAGGAGCAG-TGGAGCAGTGAGCTGCCTCCTCCTAGC 2649
1750
                                                                                                                     204
                                                                                                                                                                                                                                                                     384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   864
                                                                                                                                                                      264
                                                                                                                                                                                                                    324
                                                                                                                                                                                                                                                                                                                      444
                                                                                                                                                                                                                                                                                                                                                                     504
                                                                                                                                                                                                                                                                                                                                                                                                                     564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   984
                       84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        745 AGATCACAAGCAGCTTAAAAGGCACCAGAGTAAGGCCCAGGGCTTTGAGCCCCACTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAAGGTCCTGCGTGCCTGGTAGAGGTGAAGAAGATCTGCACCCTGNGCCTCCAGCGCA
                                                             GADACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTCGGAATGGTTAAAAGAAG
                                                                                                                                               CATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGAATG
                                                                                                                                                                                            CCCTTGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACTGTC
                                                                                                                                                                                                                                                           325. CCACTGACCAGGCTGCTGCAGGCACGGATGCTGAGGATGTACAACAGTTCTACAACCTTC
                                                                                                                                                                                                                                                                                                          385 TAACAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCCGGATTTACTGATC
                                                                                                                                                                                                                                                                                                                                              2111 TCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTTGGAGCTGTTTTGTCCTCA
                                                                                                                                                                                                                                                                                                                                                          GACTITCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                            GACTITICCATICAGGICAAACACTGCTGAAGATAAGITITGTGTTCTGCAATGGACTTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2411 AGATCACAAGCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             865 TCTTCTACCTGAAGCTGGAAGACTTGGTGTCCCCCACCTTCCATCGACGAGCTCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 925 regacaccerecertrergacageageageereageageageagereeereage
            25 AGAAAAATGCAAAAATATGTTTGCCTGGCAAATAAAAACTGCCCCGTAGACAAGAAGTC
                                                GAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTTGGAATGGTAAAAGAAG
                                                                                                TTGTCCGTACAGATAGTCTGAAAGGGAGGAGGGCGTCGTCTGCCTTCCAAACCAAAGAGCC
                                                                                                              CATTACAGCAGGAAGCCTCTCAGCCCTCTCCACCTTCTCCCCGATCTGTATGATGATG
                                                                                                                                                                                                                      265 CCCTTGTCCGAGCTTTAACAGACTCAACGCCCAGAGATCTTGATTATTCCAGATACTGTC
                                                                                                                                                                                                                                              CCACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCATCGACTTCAGTGCCTTCGTGGATTTGGGGAGTGGCTCGACTCTATTAAAGACTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ses recardeactroagrecorrogregarrreceagementerrandadactror
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTTAAATTTTGCAGAGCCTGAACCTTGATATCCAAGCCTTAGCCTGTCAGCACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   certraagrifigeagageergaacerrgarareeaageerrageergeergeeageagag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCATGATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    685 GCATGGTCACAGAACGACATGGGTTAAAAGAACCAAAGAGAGGAGGAGGAGCTATGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2650
                                                                                                                                                                                                                                                                                                                                                                                                                                              2231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2471
                                                                                                1811
                                                                                                                        145
                                                                                                                                                                                              1931
                                                                                                                                                                                                                                                                                                                                                                                             2171
                                                                                                                                                                                                                                                                                                                                                                                                                      505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2291
                                                1751
                                                                                                                                              1871
                                                                                                                                                                                                                                               1991
                                                                                                                                                                                                                                                                                               2051
                                                                       85
                                                                                                                                                                      205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
BM557376
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                    셤
                                               ò
                                                                 g
                                                                                         ò
                                                                                                                g
                                                                                                                                      \delta
                                                                                                                                                              d
                                                                                                                                                                                       ò
                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                            8 8 8
                                                                                                                                                                                                                                                                                                                                                               рp
                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
Lucaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1087).

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

National Institutes of Health, Mammalian Gene Collection (MGC)

NL Onpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov/.

Email: cgapbs-r@mail.nih.gov/.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAM12255 row: m column: 23

High quality sequence stop: 624.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 AAGGATAATATAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTAT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/mol type="mRNA"
/clone="InMACS:547838"
/tissue_type="melanotic melanoma"
/tissue_type="melanotic melanoma"
/tishost="DH108 (phage-resistant)"
/clone="lib="NHH MGC 72"
/note="Organ: Skin, Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Sal1; Cloned unidirectionally. Primer: Oligo dT.
Site_2: Sal2; Cloned unidirectionally. Primer: Oligo dT.
Perhologies."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCCTAGCAGAGGCTGTGTTCACCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 TTAAAAACAAGAACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTGTCTTAAAGATTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTTGAAAATATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTTTTAATTTCCTTCTTCCTTTTAACAAATGGTGAAAGATGGAGGATTACCTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATCAGACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATCAGACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCCATTTTTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 AGTGCTGTCTTACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGGGCTGTGTTCACCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGGATAATATAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTTTTCTAAGAAATTGCTAACAAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTTTTCTAAGAAATTGCTAACAAAGCACTTTTGGACAATGCTATCCCAGCAGGAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 21.0%; Score 796; DB 4; Length 10
Best Local Similarity 96.7%; Pred. No. 3.3e-182;
Matches 878; Conservative 0; Mismatches 20; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rechnologies.
                                                               Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          i. .1087
BM557376.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

421

BMS57376 1087 bp mRNA linear EST 20-FEB-2002 AGENCOURT\_6561893 NIH\_MGC\_72 Homo sapiens cDNA clone IMAGE:5547838

셤

a

ઠે

요 ઠે

ò

```
TITGCTICCATAAACAAGTGCAATTITIT 3226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2480 '
                                                                                                                                                                                                                                  2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3198
                                                                            ORIGIN
                                                                                                                                                                                                임
                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryota; Metazoa; Chordata; Craniata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E I (bases 1 to 1032)

NIH-MCC http://mgo.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MCC)

L Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: Gapbs-r@mail.nih.gov

Tissue Procurement: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAM12769 row: g column: 16

High quality sequence stop: 651.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGENCOURT_6544050 NIH_MGC_118 Homo sapiens cDNA clone IMAGE:5745831 5', mRNA sequence.
BM549822 GI:18785547
                                                             3468
                                                                                                                       3528
                                                                                                                                                                                   3587
                                                                                                                                                                                                                                                 3646
                                                                                                                                                                                                                                                                                                           3703
                                                                                                                                                                                                                                                                                                                                                                       3704 GGAGAGCAAGCAAA----TCTTTTAAAAATAGTATGAAT-GTGAATACTAGAAAAGAT 3758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EcoRV
pool of
primed
                              540
                                                                                         900
                                                                                                                                                     099
                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                         CCCTAGATAAGAACCTGCAAATCAGCAGGAACTGGTCATACAGGGTAAGCCACCAGGGAC
                                                                                                                                                                                                                                                                                                                           ATTAAGGATTTTTATAGATATAAATTTTAAATTTTGCTATTGGGTTAAGGAGAAACAATTTT
CCTGTCGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAAC
              CCTGTCGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGGAAC
                                                                                                                      CATGTAACTGTTTTGGTTGTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCTTCAG
                                                                                                                                        CATGTAACTGTTTTGGTTGTGTTCTATCAACCCCCACAGAGTTCCCTAAACTTGCTTCAG
                                                                                                                                                                                                                                                                                                           AATAAGGATTTTTATAGATATATAA--TTTTTGTTATTGGTTAAGGAG-ACAATTTT
                                                                                                                                                                                  TTATAGTAACTGGTATATTCATTCAGAAGCGCCATAAGTCAG-TTGAGTATTTGAT
                                                                                                                                                                                                                                              CCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCATACAGGGTAAG-CACCAGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol type="manna" corrections from the following properties of the following properties of the following properties of the following properties of the following properties of the following properties from anonymous properties of the following properties from anonymous properties adult donors. Library is oligo-dT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .1032
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                      TTAAAAA 3766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTAAGAA 908
                                                          3409
                                                                                                                                                   601
                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                           3647
                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                      3759
3349
                                                                                                                      3469
                                                                                                                                                                                  3529
                                                                                                                                                                                                                                              3588
                           481
                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
```

DEFINITION

RESULT 3 BM549822

g

ద

ઠે

g

ઠે

g

ઠ

ò

ACCESSION VERSION KEYWORDS SOURCE REFERENCE AUTHORS TITLE JOURNAL COMMENT

FEATURES

ORGANISM

```
2599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3019
                                                                                                                                                                                                                                                                                                                                                                                                         2479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3020 CAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAAATATGCTTCCTGTATCAAAGGTA 3079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 664
and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.7 kb, insert size range 1.2-3.3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 027. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                        124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    665 CAGGGTAGGATGTGTCTTAAAGATTGGTCCCTTGAAATATGCTTCCTGTATCAAGGTAC 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    185 TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCTGGACACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2600 TACCTTTCTAATCAGGAGCAGTGGAGCAGTGAGCTGCCTCCTCCTTAGCACCTGCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          365 GCAGCTCCTGTAGAAAGCAAAGACTTTCTTTTTTTTTTCTGGCTCTTTTCTACAACCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           425 AGCCAGAAAACTTGCAGAGTATTGTGTTTGGGTTTGTGTTTTATATTTAGGCATTGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTATGTGGCGCAAAACAACGCAGAAACTTCCTTTTAATTTCCCTCTTCCCTTATTTACC
                                                                                                                                                                                                                                                                                                      2360 CAGAAAGACATGGGTTAAAAGAACCAAAGAGGGGTCGAAGAGGCTATGCAACAAGATCACAA
                                                                                                                                                                                                                                                                                                                                     CCGGAATTCCTCGGGATAAAGAACCAAAGAGAGGTCGAAGAGCTATGCAACAACAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                      65 GCAGTTTAAAAGACCACCAGAGTAAGGAACAGGCTCTGGAGCCCACCGAGTCCAAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCTGGGCCCTCCAGGGCGCATCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125 TGGGTGCCCTGGTAGAACTGAGGAAGATCTGCACCCCTGGGCCTCCCAGGGCATCTTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGCTCCTGTAGAAAGCAAAGACTTTCTTTTTTTTTTGTGGCTCTTTTCCTTACAACCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2780 AGCCAGAAAACTTGCAGAGTATTGTGTTGGGGTTGTGTTTTATATTTAGGCATTGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2840 TGGGGTGGGAGGGGTTATAGTTCATGAGGGTTTTTCTAAGAAATTGCTAACAAAGCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              485 TGGGGGGGGGGTTATATAGTTCATGAGGGTTTTCTAAGAAATTGCTAACAAAGCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2900 TTGGACAATGCTATCCCAGCAGAAAAAAAGGATAATATAACTGTTTTAAAACTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            545 TTGGACAATGCTATCCCAGCAGGAAAAAAAGGATAATAAAACTGTTTTAAAACTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2960 TGGGGAATCCAATTATAGTTGCTTTGTATTTAAAAACAAGAACAAGGGTTGTTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAATGGTGAAAGATGGAGGATTACCTACAAATCAGACATGGCAAAACAATAATGGCTG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          785 AATGGGTG-AAGATGGAGGGATACCTACCAATCCAACTGGGCAAACCAATAAGGGCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                         GCAGTTTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCCACCGAGTCCAAGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2540 TGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCTGGACACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2660 TACGCAGCAAAGGGATAGGTTTGGAAACCTATCATTTCCTGTCCTTTCTTAAGAGGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                     .;
;
                                                                                                                                                                                                        Length 1032;
                                                                                                                                                                                                                                                     Indela
                                                                                                                                                                                                   Score 769.4; DB 4;
Pred. No. 9.7e-176;
0; Mismatches 46;
                                                                                                                                                                                                   20.3%;
94.4%;
                                                                                                                                                                                                   Query Match 20.3
Best Local Similarity 94.4
Matches 820; Conservative
```

ug-10-608-863-1.rst

```
with
                                                                   3404
                                                                                                                                        3405 GAACCAGATCCCTGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGG 3464
                                                                                                                                                                                                           3465 ATTACATGTAACTGTTTTGGTTGTGTTCTATCAACCCCACCAGAGTTCCCTAAACTTGCT 3524
                                                                                                                                                                                                                                                                                  TCAGTTATAGTAACTGACTGGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTT 3584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone lib="MARC 3BOV"
/note="Vector: pCMV SPORT6; Site 1: Not1; Site 2: Sal1;
Library made from pooled tissue from marrow, alveolar
macrophage, ovary, fetal semitendonosus muscle, and fetal
longissimus muscle."
                                                                                                                                                                           009
                                                                                                                                                                                                                                                099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 20-FEB-2004
                                                                                                    481 cricccióricaricccricricaderaridecccariccaadacririradeccaricridarie 540
                                                                                                                                                                                                                                                                                                                     720
                      1 (bases 1 to 852)
Smith, T. P.L., Grosse, W.M., Freking, B.A., Roberts, A.J., Stone, R.T.
Gasas, E., Wray, J.E., White, J., Cho, J., Fabrenkrug, S.C.,
Bennett, G.L., Heaton, M.P., Laegreid, W.W., Rohrer, G.A.,
Chitko-McKown, C.G., Pertea, G., Holt, I., Karamycheva, S., Liang, F.,
Quackenbush, J. and Keele, J.W.
Siguence evaluation of four pooled-tissue normalized bovine cDNA
libraries and construction of a gene index for cattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called with phred v0.020425.c and
single pass sequencing. Bases called with phred v0.020425.c and
trimmed with the aid of the trim_alt option. Vector identified v
cross_match v0.990329.
Plate: 51 row: 1 column: 19
Seq primer: GTAATACGACTCACTATAGGG.
Location/Qualifiers
                                                                                                                                                            661 TCAGTTATAGTPACTGGTGTATATTCATTCAGAAGCGCCATAAGTCAGTTGAGTATTT
                                                                                                                                                                                                                                 3345 CTTCCCTGTCGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATG
3285 AAAGGAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CK778210 852 bp mRNA linear 965365 MARC 3BOV Bos taurus CDNA 3', mRNA sequence. CK778210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Smith TPL USDA, ARS, US Meat Animal Research Center PO Box 166, Clay Center, NE 68933-0166, USA TP1: 402 762 4366 Pax: 402 762 4390
                                                                                                                                                                                                                                                                                                                                                         3585 GATCCCTAGATAAGAACATGCAAATCAGCAGGAA 3618
                                                                                                                                                                                                                                                                                                                                                                           721 GATCCCTAGATAAGAACATGCAAATCAGCAGGA 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Bos taurus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/db_xref="taxon:9913"
/tissue_type="pooled"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CK778210.1 GI:42730523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bos taurus (cow)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21180013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11282978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST.
                                                                                                                                                                                                                                                                                         3525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 5
CK778210/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                          g
                                                                                                                                                                                 임
                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                              ò
                                   유
                                                                                                                                               ò
                                                                                                                                                                                                                      ò
                                                                          8
                                                                                                                                                              2984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3105 ACTICCTITIAAITICCTICTICCTITIATITIAACAAATGGIGAAAGAIGGAGGATIACC 3164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACAAATCAGACATGGCAAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTT 3224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTAAAGTGCTGTCTTACTAAGTCTTTATTAACTCTCTTTATTCTATATGGAAATAA 3284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAGGGTTTTCTAAGAAATTGCTAACAAAGCACTTTTGGACAATGCTATCCCAGCAGGAA 2924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         / organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGAS:619660"
/tissue_type="melanotic melanoma"
/tissue_type="melanotic melanoma"
/tissue_type="melanotic phage-resistant)"
/clone_lib="NHH MGC 72"
/note="Organ: 8Kin; Vector: pCMV-SPORT6; Site 1: NotI;
/site 2: Sal1; Cloned unidirectionally. Primer: Oligo dr. Average insert size 2 kb. Library constructed by Life Technologies."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                      BQ431513 819 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:6159660 5', mRNA Sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361 TTAAAGTGCTGTCTTACTAAGTCTTGTTTATTAACTCTCCTTTATTCTATATGGAAATAA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 AAAAAAGGATAATAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3045 GGTCCCTTGAAAATATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 GGTCCCTTGAAATATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAAAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 ACTICCITITAATITICCTICTICCTITATITITAACAAAIGGIGAAAGAIGGAGAGATIACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2925 AAAAAAGGATAATATAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTATTTAAAAACAAGAACAGCCAAGGGTTGTTCGCCAGGGTAGGATGTGTCTTAAAAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19.8%; Score 752.4; DB 5; Length 819; Lonsity 99.9%; Pred. No. 1.3e-171; Conservative 0; Mismatches 1; Indels 0.
                                                                                  BQ431513
BQ431513.1 GI:21170589
                                                                                                                                  Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 753; Conserv
                                                                                                                     EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                             LOCUS
DEFINITION
                                                                                                                                                                                                         REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
             BQ431513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
```

ð 셤 ò ò g

```
E D'AIRES DOS.

S Smith, T.P.L., Roberts, A.J., Echternkamp, S.E., Chitko-McKown, C.G., Wray, J.E. and Keele, J.W.

A second set of bovine EST9 from pooled-tissue normalized libraries Unpublished (2003)
Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Tel: 402 762 4396
Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called with phred v0.020425.c and trimmed with the aid of the trim_alt option. Vector identified with cross match v0.990329.
Plate: POY8053 row: I column: 18
                                    Chordata, Craniata, Vertebrata, Euteleostomi, Cetartiodactyla, Ruminantia, Pecora, Bovidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 CCGTACAGACAGTCTGAAAGGGAGAAGAGTCGGCTGCCTTCCAAACCAAAGAGCCCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 TGTCCGAGCTTTAACAGACTCAACGCCCAGAGATCTTGATTATTCCAGATACTGTCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421 TTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCGACTTCAGTGCCTTCGTGGATTTGGGGAGTGGCTCGACTCTATTAAAGACTTTTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Bos taurus"
/mol_type="mRNA"
/db xref="taxon:9913"
/tisue_type="pooled"
/lab host="DH108"
/clone_lib="MARC 6BOV"
/note="Vector: pcDNA3.1; Site_1: EcoRI; Site_2: NotI;
/incle="with RNA pooled from multiple tissues
/including liver, lung, hypothalamus, pitultary, and
placenta/endometrium."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1875 ACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCCAATCTGCATGAATGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1935 TGTCCGAGCTTTAACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACTGTCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACTTCTACAACCTCCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 TGACCAGGCTGCTGCAGGACGCACGGATGTACAACAGTTCTACAACCTTCTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 AGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAGATTCCCCGGATTTACTGATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGTTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 ccgargrcagracrcrcgarrrcagaagrgrcrcagrcrcggaarggrraaagaagrrgr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1815 CCGTACAGATAGTCTGAAAGGGAGAGAGGTCGTCGTCTGCCTTCCAAACCAAAGAGCCCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCGGGGATTTACTGATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTTGGAGCTGTTTGTCCTCAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        caaagaagarcagacarractraragaarcagccrrrrrggagcrgrrrgrrcrcagacr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCCATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 671;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 627.8; DB 6;
Pred. No. 2.6e-141;
0; Mismatches 27;
                                                                                                                                                                                                                                                                                                                                                 Seg primer: GTAATACGACTCACTATAGGG
                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16.5%;
                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 644; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 644; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2235
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                     TITLE
JOURNAL
COMMENT
                                                                                        REFERENCE
                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                    2138
                                                                                                                                                         2198
                                                                                                                                                                                                                             2258
                                                                                                                                                                                                                                                                                                2318
                                                                                                                                                                                                                                                                                                                                                                   2378
                                                                                                                                                                                                                                                                                                                                                                                                                                      2438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AG-TGGAGCAGTGAGCTGCTCCTCTCCTAGCACCTGCTTGCTACGCAGCAAAGGGA-TA 2676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GICTCCACCTICCATCATTGACAAGCTCTTCCTGGACACCCTACCTTTCTAATCAGGAGC 2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2853 GGTTATAGTTCATGAGGGTTTTCTAAGAAATTGCTAACAAAGCACTTTTGGACAATGCTA 2912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST 25-MAR-2003
                                                      ŝ
                                                                                                                       790
                                                                                                                                                                                         730
                                                                                                                                                                                                                                                              670
                                                                                                                                                                                                                                                                                                                                  610
                                                                                                                                                                                                                                                                                                                                                                                                     550
                                                                                                                                                                                                                                                                                                                                                                                                                                                        430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       249 GGTCTGGACACCTACCATTTTCTGTCCTTCCTTAAGAGAGAAAACAAGCTCCTGTTGAAA 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            189 TGAAAGACTTTTTTTTTTTTTTTTGGCACTTTTCCTTACATCTGAAAGCCAGAAAACTT 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              129 GCAAAGTATTGTGTTGTGTTGTGTTTTATATTTAGG-TTTTGGGGTTGGGATGGGAGGT 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGTATAGTTCATGAGGGTTTTCTAAGAAATTGCTAACAAAGCACTTTTGGACAATGCTA 11
                                                                                                                                                                       789 AGAATCAGCCTTTTTTGGAGCTGTTTGTTCTCAGACTTTCCATCAGTCAAACACTGCTGA
                                                                                                                                                                                                                                                                                                               GGTTTGGAAACCTATCATTTCCTGTCCTTCCTTAAGAG-GAAAAGCAGCTCCTGTAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2793 GCAGAGTATTGTGTTGGGGTTGTGTTTTTATATTTTAGGCATTGGGGGATGGGGAGGG
                                                                                    CTGGGCAGAAAAGATTCCGGGGATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTAT
                                                                                                        CGGGGCAGAAAAGATTCCCGGATTTACTGATCTCCCCAAAGAAGATCAGAGAAGATTACTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAACCAAAGAGAGTCGAAGAGCTATGCAACAAGATCACAAGCAGTTTAAAAAGACCACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGATTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCCCCACCTTCCATCATCGACAAGCTCTTCCTGGACACACCCTGCCTTTCTGAGCAGGAGC
                                                                                                                                                     TGAATCAGCCTTTTTGGAGCTGTTTGTCCTCAGACTTTCCATCAGGTCAAACACTGCTGA
                                                                                                                                                                                                                          AGATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTGCCTTCGTGGATT
                                                                                                                                                                                                                                                              AGATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTGCCTTCGTGGATT
                                                                                                                                                                                                                                                                                             TGGGGAGTGGCTCGACTCTATTAAAGACTTTTCCTTAAATTTGCAGAGCCTGAACCTTGA
                                                                                                                                                                                                                                                                                                                                                                 TATCCAAGCCTTAGCCTGCCTGTCAGCACTGAGCATGATCACAGAAAGACATGGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGTAAGGGACAGCCTCTGGAGCCCACCGAGTCCAAGGTCCTGGGTGCCCTGGTAGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGAACTCTGCACCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGAAGACTTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2736 GCAAAGACTTTCTTT---TTTCTGGCTCTTTTCCTTACAACCTAAAGCCAGAAAACTT
                                                    Gaps
                                                  7;
                   Length 852;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CB445292 671 bp mRNA linear 695544 MARC 6BOV Bos taurus cDNA 5', mRNA sequence. CB445292 G1:29236177 EST.
                                                  Indels
                Score 696.4; DB 7;
Pred. No. 5.5e-158;
0; Mismatches 56;
                Query Match
Best Local Similarity 92.6%;
Matches 787; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2913 TCCCAGCAGG 2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCCAGCAGG
                                                                                  2079
                                                                                                                     849
                                                                                                                                                     2139
                                                                                                                                                                                                                        2199
                                                                                                                                                                                                                                                                                             2259
                                                                                                                                                                                                                                                                                                                               699
                                                                                                                                                                                                                                                                                                                                                                 2319
                                                                                                                                                                                                                                                                                                                                                                                                                                      2379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2677
                                                                                                                                                                                                                                                          729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10
                                                                                                                                                                                                                                                                                                                                                                                                   609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
CB445292
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                g
                                                                                                                                                                                                                                                        요
                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                     ð
                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
```

ö

Gарв

9

1934

2054

300

2174

480

```
2866 GAGGGTTTTCTAAGAAATTGCTAACAAGCACTTTTGGACAATGCTATCCCAGCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                    3046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
CB465379
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                          셤
                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                 ò
                                             원
                                                                                              ⋩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. 757

/ organism="Momo sapiens"
// mol_type="mRNA"
// db xref="raxon:9606"
// clone="TMAGE:30409956"
// tissue_type="mens"
// tissue_type="pooled"
// lab host="DH10B (TI phage-resistant)"
// clone lib="NIH MGC 191"
// site 2: Sfil (ggcgctccggcc); Library is oligo-dT primed and directionally cloned. PBMC - Peripheral Blood Mononuclear Cells. RNA was pooled from 3/6hour stimulation with PMA and lonowycin. 5' and 3' adaptor sequence:
// cloning as follows: 5' ada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Bukaryota; Butheria; Primates; Catarrhini; Hominidae; Homo.

In (Dases I to 757)

Mational Institutes of Health, Mammalian Gene Collection (MGC)

In Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics

Office of Cancer Genomics

National Cancer Institute / NIH

Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: MD2 ClonymECH Laboratories, Inc.

CDNA Library Preparation: CLONYECH Laboratoriem (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Location/Qualifiers

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                CD521819
757 bp mRNA linear EST 06-JUN-2003
AGENCOURT 14360118 NIH_MGC_191 Homo sapiens cDNA clone
IMAGE:30409856 5', mRNA sequence.
                                                                                                                                                                    2414
                                                           099
          481 TCGACTTCAGTGCCTTCGTGGATTTGGGGAGTGGCTCGACTCCATTAAAGACTTTTCCTT 540
                                                                                                                                                                  2355 GATCACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGGTTGCAACAAGAT
                                                                                                                                                                                             Score 617; DB 6; Length 757;
Pred. No. 1.2e-138;
0; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CD521819.1 GI:31453537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 98.9%;
Matches 632; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST.
Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                              2415 CACAAGCAGIT 2425
                                                                                                                                                                                                                                                                                                                              661 CACAAGCAGCT 671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CD521819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 7
CD521819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                    g
                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                 à
                  g
                                                                      ò
```

Gaps

```
Bost taurus (cow)

Bos taurus (cow)

Bos taurus

Bos taurus

Bos taurus

Bos taurus

Bos taurus

Bos taurus

Bost taurus

Bost taurus

Borinae; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;

Bovinae; Bos.

Bovinae; Bos.

Bovinae; Bos.

Bovinae; Bos.

Bovinae; Bos.

Smith,T.P.L., Roberts,A.J., Echternkamp,S.B., Chitko-McKown,C.G.,

Wray,J.B. and Keele,J.W.

A second set of bovine ESTs from pooled-tissue normalized libraries

Unpublished (2003)

Contact: Smith TPL

Unpublished (2003)

Contact: Smith TPL

Uppublished (2003)

Contact: Smith TPL

Po Box 166, Clay Center, NE 68933-0166, USA

Tel: 402 762 4366

Fax: 402 762 4366

Fax: 402 762 4366

Email: smith@email.marc.usda.gov

Single pass sequencing. Bases called with phred v0.020425.c and single pass sequencing. Example trimmed with the aid of the trim_alt option. Vector identified with cross_match v0.99929.

Plate: LAM8005 row: F column: 20

Seq primer: GTAATACGACTCACTATAGGG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3286 AAGGAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACC 3345
421 AAGGAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCTAGCAGAGGCTGTGTTCACC 480
                                                                                                                                                                                                                                                                                                                                                                   3165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                3225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3346 TTCCCTGTCGATCCCTTCTGAGGTATGGCCCATCCAAGACTTTTAGGCCATTCTTGATGG 3405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACCAGATCCCTGCCCTGACTGTCCAGCTATCCTGAAAGTGGATCAGATTATAAACTGGA 3465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST: 26-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3226 TAAAGIGCIGICITACIAAGICITIGITIAITAACICICCITIAITICIATAIGGAAATAAA 3285
                                                                                                                                                                  2986 TATTTAAAAACAAGAGAAGAGGTTGTTCGCCAGGGTAGGATGTGTCTTAAAGATTG 3045
                                                                                                                                                                                                                                                                 GTCCCTTGAAAATATGCTTCCTGTATCAAAGGTACGTATGTGGTGCAAACAAGGCAGAAA 3105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 AAAAAGGATAATATAAAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTG 120
                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3106 CITCCTTTTAATTTCCTTCTTTTTTTAACAAATGGTGAAAGATGGAGGATTACCT
                                                                                                                                                                                                                                                                                                                                                                                             241 CTICCTTTTAATTTCCTTCTTCCTTTAATTTTAACAAATGGTGAAAGATGAAGGATGAAGGATAACCT
2926 AAAAAGGATAATATAACTGTTTTAAAACTCTTTCTGGGGAATCCAATTATAGTTGCTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                3166 ACBARTCAGACATGGCAAACAATAATGGCTGTTTGCTTCCATAAACAAGTGCAATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            679 bp mRNA linear
726652 MARC 6BOV Bos taurus cDNA 5', mRNA sequence.
CB465379.1 GI:29271764
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTACATGTAACTGTTTT--GGTTGTGTTCTATCAACCCC 3502
```

```
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Bovinae; Bos.

1. (bases 1 to 635)
1. (bases 1 to 635)
1. (bases 1 to 635)
1. (bases 1 to 635)
1. (boson cet of bovine ESTS from pooled-tissue normalized libraries (broublished (2003)
1. (contact: Smith TPL
1. (90 Box 166, Clay Center, NE 68933-0166, USA
1. Tel: 402 762 4396
1. Fax: 402 762 4390
1. Email: smith@email.marc.usda.gov
1. Single pass sequencing. Bases called with phred v0.020425.c and trimmed with the aid of the trim_alt option. Vector identified with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1619 ACAACGCCGCCTGCCAGCACTACGGCGTGCGAACCTGCGAGGGCTGCAAGGGCTTTTTCA 1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAGAACAGTGCAGAAAATGCAAAATATTTGCCTGGCAAATAAAAACTGCCCAGTAG 1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAA 1798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2099 GATTTACTGATCTCCCCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGC 2158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /Lisaue_tree="pooled"
/lab_host="DH10B"
/clone lib="MARC 6BOV"
/note="Vector: pcDNA3.1; Site 1: EcoRI; Site 2: NotI;
Library made with RNA pooled from multiple tissues
including liver, lung, hypothalamus, pituitary, and
placenta/endometrium."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ACAACGCCGCCTGCCAGCACTACGGGGTGCGCACCTGCGAGGGCTGCAAGGGCTTCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGAACAGTGCAGAAAAATGCAAAATATGTTTGCCTGGCAAATAAAAAACTGCCCCGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 ACAAGAGACGTCGAAACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTCGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACCAAAGAGCCCATTACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGTAAAAGAAGTTGTCCGTACAGATAGTCTGAAAGGGAGGAGGAGGTCGTCTGCCTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 AACCAAAGAGCCCATTACAGCAGGAAGCCTCTCAGCCTCTCCACCTTCTCTCCGATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAGATACTGTCCCACTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2039 TCTACAACCTCCTGACAGCCTCCATTGATGTATCCAGAAGGCTGGGCAGAAAAGATTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 635;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 597.2; DB 6;
Pred. No. 7.3e-134;
0; Mismatches 24;
                                                                                                                                                                                                                                                                                                            cross match v0.990329.

Plate: FQY8056 row: B column: 15
Seg primer: GTAATACGACTCACTATAGGG.
                                                                                                                                                                                                                                                                                                                                                                                                 taurus"
                                                                                                                                                                                                                                                                                                                                                                                              /organism="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 96.2%;
Matches 611; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1739
 KEYWORDS
SOURCE
ORGANISM
                                                                                                                                             TITLE
JOURNAL
COMMENT
                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                              1753
                                                                                                                                                                                                                                                                                                                                                               1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2351
                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGTACAGATAGTCTGAAAGGGAGGAGAGGTCGTCTGCCTTCCAAACCAAAGAGCCCAT 1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST 26-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                999
                                                                                                                                                                                                                                                                                                                               99
                  1. .679
/organia="Bos taurus"
/mol_type="mRNA"
/db_xref="taxon:9913"
/tissue_type="pooled"
/lab_host="DH10B"
/clone_lib="MARC 6BOV"
/note="Vector: pcDNA3.1; Site_l: EcoRI; Site_2: NotI;
Library made with RNA pooled from multiple tissues
including liver, lung, hypothalamus, pituitary, and
placenta/endometrium."
                                                                                                                                                                                                                                                                                                                 ACCGATGTCAGTACTGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGTTG
                                                                                                                                                                                                                                                                                                                                                                                  ACCGATGTCAGTACTGTCGCATTTCAGAAGTGTCTCAGTGTCTCGGAATGGTTAAAGAAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACAACAGGAACCTTCTCAGCCCTCTCCACCTTCTCCTCCAATCTGCATGATGAATGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGTCCGAGCTTTAACAGACTCAACACCCCAGAGATCTTGATTATTCCAGATACTGTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGACCAGGCTGCAGGCACGGATGCTGAGCATGTACAACAACAGTTCTACAACCTTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATCGACTTCAGTGCCTTCGTGGATTT-GGGGAGTGGCTCGACTCTATAAAGACTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTAAGTTTGCCGAGAGCCTGAACCTTGATATCCAAGCCTTAGCCTGTCAGCACTGAG
                                                                                                                                                                                                                                                                                                1694 AAAATGCAAAATATGTTTGCCTGGCAAATAAAAACTGCCCAGTAGACAAGAGACGTCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCGTACAGACAGTCTGAAAGGGAGAAGAGGTCGGCTCCCTTCCAAACCAAAGAGCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACAGCAGGAAGCTCTCAGCCCTCTCCACCTTCTCCACCTGTTGTATGATGATGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGACCAGGCTGCTGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAAAGAAGATCAGACATTACTTATTGAATCAGCCTTTTTTGGAGCTGTTTGTCCTCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTCCATCAGGTCAAACACTGCTGAAGATAAG-TTTGTGTTCTGCAATGGACTTGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCTCCATTGATGTATCCAGAAGCTGGGCAGAAAGATTCCCGGGATTTACTGATCTCC
                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                 .
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CB447412 635 bp mRNA linear 701414 MARC 6BOV Bos taurus cDNA 5', mRNA sequence. CB447412.1 GI:29253794
                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                            16.1%; Score 612.2; DB 6; 96.3%; Pred. No. 1.7e-137; iive 0; Mismatches 23;
Location/Qualifiers
1. .679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGATCACAGAA 2364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGGTCACAGAA 679
                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                 Matches 648;
                                                                                                                                                                                                                                                                                                                                                               1754
                                                                                                                                                                                                                                                                                                                                                                                                                                1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2352
                                                                                                                                                                                                                                                                                                                               7
                                                                                                                                                                                                                                                                                                                                                                                              67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
ACCESSION
VERSION
                    Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
CB447412
FEATURES
                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

ö

```
2247
                                                                                                                                                                                                                                                                                                                                                                     2307
                                                                                                                                                                                                                                                                                                                                                                                         542
                                                                                                                                                        2007
                                                                                                                                                                                                                                                                                                                                                                                                                                  602
                                                                                           122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
CD638747
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                           g
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                ద
                                                                                                                                                        ò
                                                                                                                                                                                                ò
                                              g
                                                                    8
                                                                                        g
                                                                                                               ò
                        ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gallus gallus (chicken)
Gallus gallus
Gallus gallus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordathae; Galliformes; Phasianidae;
Thosauria; Avee; Neognathae; Galliformes; Phasianidae;
Thosae; Tro 40.
Boardman, P.E., Sanz-Bzquerro, J., Overton, I.M., Burt, D.W., Bosch, E.,
Fong, W.T., Tickle, C., Brown, W.R.A., Wilson, S.A. and Hubbard, S.J.
A Comprehensive Collection of Chicken cDNAs
Court. Biol. 12 (22), 1965-1969 (2002)
                                                                                                                                              BU436288 100V-2002 940 bp mRNA linear EST 29-NOV-2002 603208116F1 CSEQREN11 Gallus gallus cDNA clone ChEST18303 5', mRNA
                                           Science and Technology
                                                                       ATGGACTIGICCTGCATCGACTTCAGTGCCTTCGT 2253
                                                                                    601 ATGGACTTGTCCTGCATCGACTTCAGTGCCTTCGT 635
                                                                                                                                                                                                                                                                                                                       1245592
Contact: Simon Hubbard
Department of Biomolecular Sciences
University of Manchester Institute of
(UMIST)
                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol_type="mRNA"
/strain="Layer and broiler"
/db xref="taxon:9031"
/clone="ChEST18303"
/sex="Male and female"
/tissue_type="muscle"
                                                                                                                                                                                                                                                                                                                                                                                 PO Box 88, Manchester, M60 1QD, UK
Tel: 01612008930
Fax: 01612360409
                                                                                                                                                                                                                                                                                                                                                                                                                                               'organism="Gallus gallus"
                                                                                                                                                                                                                                                                                                                                                                                                                  Email: Simon.Hubbard@umist.ac.uk.
                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                BU436288
BU436288.1 GI:25925599
                                                                                                                                                                         sequence.
                                  2159
                                                                            2219
                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                   LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                              RESULT 10
BU436288
                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                      g
                                                                            ò
                                  ò
```

```
2246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 17-JUN-2003
                                                                                                                                                                                                                          2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTTCGTGGATTTGGGGAGTGGCTCGACTCTATTAAAGACTTTTCCTTAAATTTTGCAGAG 2306
                                                                                                                                              1946
                                                                                                                                                                                                                                                                                                       TGCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCCTGACAGCCTCCATTGA 2066
                                                                                                                                                                                                                                                                                                                                                                                     2067 TGTATCCAGAAGCTGGGCAGAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGATCA 2126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                              302 CATATCCAGAGGCTGGGCAGAAAAATTCCAGGATTTACTGACCTCCCGAAAGAAGAAGA 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          422 TGATACTGCTGAGGATAAGTTTGTATTCTGCAATGGACTTGTGCTTCATAGACTTCAGTG 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 635)
                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2472 CAAGGICCTGGGTGCCCTGGTAGAACTGAGGAAGAICTGCACCCTGGGCCTCCAGCGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        722 TAAGGTACTGGGTGTTCTTGCTG-ACTTGCGTCTCTCTGCACACTGGGGACTGCAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2532 CTTCTACCTGAAGCTGGAAGACTTGGTGTCTCCACCTTCCATCATTGACAAGCTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 CITITACCIGAAACIGGGAAGAITGGGIGGAGCCCTICCAAITAICGACAGCIGITCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2187 AAACACTGGTGAAGATAGAGTTTGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTGAACCTTGATATCCAAGCCTTAGCCTGCCTGTCAGCACTGAGATCACAGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2427 AAAAGACCA------CCAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             662 gadagarcherranerrrengtrecchahacadagachgecegeregagrecegene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2127 GACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTCCTCAGACTTTCCATCAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2367 ACATGGGTTAAAAGAACCAAAGAGTCGAACAGCTATGCAACAAGATCACAAGCAGTTT
1887 ITCTCAGCCCTCTCCACCTTCTCCCAATCTGCATGAATGCCCCTTGTCCGAGCTTT
                                                                                                                                                                                                                            1947 AACAGACTCAACACCCAGAGATCTTGATTACTCCAGATACTGTCCCACTGACCAGGCTGC
                                                                                                                                                                                                                                                 242 IGCAGGCACAGAIGCAGAACAIGTACAACAGTICTATAAICTICTGACTGCCTCCAITGA
                                                                 1827 TCTGAAAGGGAGGAGGAGGTCGTCTGCCTTCCAAACCAAAGAGCCCCATTACAACAGGAACC
                                                                                                                                                                                      rregeadecerecedecrrereceiceareacardaardaaceeeregracdagerrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGENCOURT 14534944 NIH MGC_191 Homo sapiens cDNA clone IMAGE:30417493 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACACCCTACCTTTCTAA 2610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841 GGACAACTTTGCCTTCTGA 859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CD638747.1 GI:31804872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
```

16;

15.4%; Score 583; DB 5; Length 940; 81.8%; Pred. No. 2.3e-130; Live 0; Mismatches 140; Indels

0;

Query Match Best Local Similarity 81.8° Matches 703; Conservative

```
/ Close - Traversistant) "
/ (Lissue - Traver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST 06-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NIH-MGC http://mgc.nci.nih.gov/.

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)

Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics
National Cancer Institute / NIH

Bldg. 31 Rm10A07 Betheada, MD 20892

Email: cgapbs-r@mail.nih.gov

Tissue Procurement. Narayan Bhat

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llni.gov

Righ quality sequence stop: 483.

High quality sequence stop: 483.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 794)
                                                                                                                                                                           483 GTTAAGGAGACAATTTTGGAGAGCAAGCAAATCTTCTTTTTAAAAATAGTATGGAATGTG
                                                 423 ACAGGGTAAGCACCAGGGACAATAAGGATTTTTATAGATATAATTTAATTTTTGTTATTG
                3627 ACAGGGTAAGCACCAGGGACAATAAGGATTTTTATAGATATAAATTTAATTTGTTATTG
                                                                                                                                       3687 GTTAAGGAGACAATTTTGGAGAGCAAGCAA---TCTTTTAAAAAATAGTATGAATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1768 TGTCGATTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGTTGTCCGTACAGATAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          543 AATACTAGAAAAGATTT-AAAAATAGTATGAGTGTGAGTACTAGGAAGGAT 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CD522275
AGENCOURT_14356328 NIH_MGC_191 Homo sapiens cDNA clone IMAGE:30413377 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 561; DB 6; Length 794;
Pred. No. 5.1e-125;
0; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone="IMAGE:30413377"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CD522275.1 GI:31453993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 97.33
Matches 624; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
CD522275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                 셤
                                                                                                                                          ò
                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3207 ATAAACAAGTGCAATTTTTTAAAGTGCTGTCTTACTAAGTCTTGTTTATTAACTCTCTT 3266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3267 TATTCTATATGGAAATAAAAGGAGGCAGTCATGTTAGCAAATGACACGTTAATATCCCT 3326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3327 AGCAGAGGCTGTTCACCTTCCCTGTCGATCCCTTCTGAGGTATGGCCCCATCCAAGACT 3386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTAGGCCATTCTTGATGGAACCAGATCCCTGCCCTGACTGTCCAGCTATCCTGAAAGTG 3446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3447 GATCAGATTATAAACTGGATTACATGTAACTGTTTTGGTTGTGTTCTATCAACCCCACCA 3506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3507 GAGTICCCTAAACTIGCTICAGITAIAGIAACTGACTGGTAITITCAITCAGAAGCGCCA 3566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3567 TAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCAT 3626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123 AGCAGAGGCTGTGTTCACCTTCCTGTGGATCCCTTCTGAGGTATGGCCCATCCAAGACT 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183 TTTAGGCCATTCTTGATGGAACCAGATCCCTGCCTGACTGTCCAGCTATCCTGAAGTG 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATCAGATTATAAAACTGGATTACATGTAACTGTTTTGGTTGTTCTATCAACCCCCACCA 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63 TATTCTATATGGAAATAAAAGGGGGGGGGTCATGTTAGCAAATGACACGTTAATATCCCT 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              363 TAAGTCAGTTGAGTATTTGATCCCTAGATAAGAACATGCAAATCAGCAGGAACTGGTCAT 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 ATABACAAGTGCAATTTTTTAAAGTGCTGTCTTACTAAGTCTTGTTTATTAACTTCTCTT
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 RmlOM7 all-lih.gov
Tissue Procurement: Narayan Bhat
                                                                                                                                                                                                                                                                                                                                                                                              þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                    CDNA Library Preparation: CLONTECH Laboratories, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: NDCA18 row: p column: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 635;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match
14.8%; Score 563; DB 6; L.
Best Local Similarity 99.3%; Pred. No. 1.6e-125;
Matches 587; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    High quality sequence stop: 505.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 243
                                       TITLE
JOURNAL
COMMENT
         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
```

1827 'n

g

ઠે 셤 ઠે

임

셤

ઠે

g ò а ò

ઠે

2177

630

4

2237

570

510

q

ద ò

ઠે

유 ð 원 요 ò g ò 셤 ò 쉽 ò ద ò

δ

```
CK635592 802 bp mRNA linear EST 28-JAN-2004 UI-M-HNO-cnl-j-11-0-UI.rl NIH_BMAP_HNO Mus musculus CDNA clone IMAGE:30643330 5', mRNA sequence.
CK635592 GI:41361458
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2238 ACTICAGIGCCIICGIGGATIIGGGGAGIGGCICGACICIAITAAAGACITIICCIIAAA 2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGGGTGCCCTGGAACTGAGGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGAAGCTGGAAGCTTGGTGTCTCCACCTTCCATTGACAAGGTCTTCCTGGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  269 CCTGAAGCTGGAAAGCTTGGTGTCCCCACCTTCCATCGACAAGCTCTTCCTGGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2657 TGCTACGCAGCAAAGGGA-TAGGTTTGGAAACCTATCATTTCCTGTCCTTCCTTAAGAG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACAGAAAGACATGGGTTAAAAGAACCAAAGAGAGTCGAAGAGGTTTGCAACAAGATCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCAGTITTAAAAGACCACCAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGTCCAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGCGTGCCCTCGTAGAACTGAAGAAGATCTGCACCCTGGGCCTCCAGCGCATCTTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTACCTTTCTAATCAGGAGCAG-TGGAGCAGTGAGCTGCCTCCTCCTAGCACCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           209 CCTGCCTTTCTGAGCAGGAGCAGCAGGAGCAGGAGCTGCTTCATCTGCTAGCAGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                       2118 AGAAGATCAGACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTCCTCAGACTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                   2178 CATCAGGTCAAACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCGTGCATCG
               /mol_type="mrNa"
/db_xref="taxon:9913"
/tisme_type="pooled"
/lab host="DH10B"
/clone_lib="MARC 6BOV"
/note="Vector: pcDNA3.1; Site_1: EcoRI; Site_2: NotI;
/note="Vector: pcDNA3.1; Site_1: multiple tissues
library made with RNA pooled from multiple tissues
including liver, lung, hypothalamus, pituitary, and
placenta/endometrium."
                                                                                                                                                                                                                                                                                         7;
                                                                                                                                                                                                                                                Length 689;
                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                Query Match
Best Local Similarity 92.0%; Pred. No. 7.2e-124;
Matches 632; Conservative 0; Mismatches 48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACATCTGAAAGCCAGAAAACTTGCAAA 3
organism="Bos taurus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAACCTAAAGCCAGAAAACTTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
CK635592
                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Bovinae; Bos.

1 (bases I to 689)

2 Smith, T.P.L., Roberts, A.J., Echternkamp, S.E., Chitko-McKown, C.G., Ray, J.E. and Keele, J.W.

A second set of bovine ESTS from pooled-tissue normalized libraries of Dray, J.E. and Meat Animal Research Center Contact: Smith TPL USDA, ARS, US Meat Animal Research Center PO Box 166, Clay Center, NE 68933-0166, USA

Tel: 402 762 4396
Fax: 402 762 4396

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCGTGGATTTGGGGAGTGGCTCGACTCTATTAAAGACTTTTCCTTAAATTTGCAG-AG 2306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGAACCTTGATATCCAAG-CCTTAAGCCTGCCTCTCAGCACTGAG-CATGATCA-CAGA 2363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTGC 2247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST 26-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                        2127
                                                                                                                                                                                                                                                                                                      2067
                                                 1887
                                                                                                                                   1947
                                                                                                                                                                                                                      2007
                                                                                                                                                                                                                                                            242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTGAACCTTGATATCCAAGCCCTTAGCCTGCCTGTCAGCCATGGCCATCATCACCGGA 602
                                                                                                                                                                                                                                                                                                                                            302
                                                                                                                                                                                                                                                                                                                                                                                                                                   362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122
                                                                                                                                                                           182
                                              CTGAAAGGGAGGAGGGTCGTCTGCCTTCCAAACCAAAGAGCCCATTACAACAGGAACCT
                                                                                  CTGAAAGGGAGGAGAGGTCGTCTGCCTTCCAAACCAAAGGAGCCCATTACAACAGGAACCT
                                                                                                                                   TCTCAGCCCTCTCCCTCTCTCCTCCCATCTGCATGATGCCCTTGTCCGGGCTTTA
                                                                                                                                                            123 TCTCAGCCCTCTCCACCTTCTCCTCCCATCTGCATGAGATGATGACCTTGTCCGAGCTTTA
                                                                                                                                                                                                                   ACAGACTCAACACCCAGAGATCTTGATTATTCCAGATACTGTCCCACTGACCAGGCTGCT
                                                                                                                                                                                                                                                                                                                                 GTATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                 GTAICCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTCCTCAGACTTTCCATCAGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 363 ACATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTTGTCCTCAGACTTTCCATCAAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTCGATTTTCAGAAGTGTCTCAGTGTTGGAATGGTAAAAGAAGTTGTCCGTACAGATAGT
                                                                                                                                                                                                                                              GCAGGCACAGATGCTGAGCATGTGCAACAATTCTACAACCTCCTGACAGCCTCCATTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CB447773 689 bp mRNA linear 701798 MARC 6BOV Bos taurus cDNA 3', mRNA sequence. CB447773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2364 AAGACATGGGTT---AAAAGAACCAAAGAGAGAGAGAGGC 2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CB447773.1 GI:29254155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 taurus (cow)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bos taurus
Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST.
                                                                                                                                          1888
                                                                                                                                                                                                                               1948
                                                                                                                                                                                                                                                                                                               2008
                                                                                                                                                                                                                                                                                                                                                       243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                                                                                                                          303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 543
                                                         1828
                                                                                                                                                                                                                                                                                                                                                                                                 2068
                                                                                                  63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
CB447773/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
```

셤 ò

2417

450

2477

330

390

2770

30

2714

90

2656

150

2537

270

2597

```
1 (bases I to 644)
Smith T.P.L., Roberts, A.J., Echternkamp, S.E., Chitko-McKown, C.G.,
Smith T.P.L., Roberts, A.J.,
A second set of bovine ESTs from pooled-tissue normalized libraries
Unpublished (2003)
Contact: Smith TPL
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
Fat: 402 762 4366
Fax: 402 762 4366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Email: smith@email.marc.usda.gov
Single pass sequencing. Bases called with phred v0.020425.c and
trimmed with the aid of the trim_alt option. Vector identified with
cross match v0.990329.
Plate: PQY8053 row: I column: 18
Seq primer: TAGAAGGCACAGTCGAGG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 26-MAR-2003
                                                                                                                                                                                                                                                                                 619
                                                                                                                                                                                                                                                                                                                                                                                      739
                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          800 CGGAATACACCACGGAGATCATGAACCCCGACTACACCAAGCTGACCATGGACCTTGGCA 859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            778
                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        740 TCCAAGCCCAATATAGCCCTTCCCCTCCAGGTTCCAGTTATGCGGCGCAGACATACAGCT 799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               860 GCACTGAGATCACGGCTACAGCCACCACGTCCCTGCCCAGCATCAGTACCTTCGTGGAGG 919
                          Grrriergeaccecaececrreeggacaecaecrereacrerececeaarecaearree
                                                                                                                          362 GGTCGCTCTAGAAACTCGCTCTAAAGACGGAACGGCACAGGACCCAAAGCCCACTG 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                   542 CTGGAGAGA - CCCCCAGCCCCACCATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         482 GCACAGCGGCTGCTTCGCCTATCCCGACGTCCCCGCCTCCTACACTCTCAGCCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601 TGCAAGCCCAGTATAGCCCTTCACCTCCGGGGTCCACTTACGCCCACGCAGACTTATGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="pooled"
/lab.host="minlos"
/clone lib="MARC 6BOV"
/note="Vector: pcDNA3.1; Site_1: EcoR1; Site_2: Not1;
                                                                            GGACAGCTCTCTAGAAACTCGCTCTAAAGACGGAACCGCCACAGCACTCAAAGCCCCACTG
                                                                                                                                                                                 CGGAAGAGGCCAGCCCGGCAAGCCCGGGCCCTGAGCCTTGGACCCTTAGCGGTGCCGGGCA
                                                                                                                                                                                                                              422 cedeadadecedecedacadadecededeceredaceredaceredacedadeced
                                                                                                                                                                                                                                                                                                                                                                                      CTGGAGAGACCCCCAGCCCCACCATTCAGCGCGCAAGATACCCTCCAGATATGCCCTGCG
                                                                                                                                                                                                                                                                                   GCA----CTGCCGGCGCTTCGCCTCGCCGGACGTCCGCTCCTCCTACACTCTCAGCCTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CB445564 1inear 644 bp mRNA linear 696928 MARC 6BOV Bos taurus CDNA 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Bos taurus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /mol_type="mRNA"
/db_xref="taxon:9913"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 920 GCTACTCGAGCAACTACGAACTCA 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      779 GCTAC-CCAGCAGCTGCGAACTCA 801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CB445564.1 GI:29251946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . .644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bos taurus (cow)
Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CB445564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST
                                                                                                                                                                                 263
                                                                                                                                                                                                                                                                                                                                                                                      680
                             302
                                                                            503
                                                                                                                                                                                                                                                                                 623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CB445564/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                       셤
                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                            ò
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Mus musculus"
//organism="Mus musculus"
//organism="Mus musculus"
//strain="C57BL/6"
//db xref="taxon:10090"
//clone="INAGE: 1064330"
//clone="INAGE: 1064330"
//clone="INAGE: 106430"
//clone="INAGE: 1065 dpc"
//db host="Dpur Head"
//clone="INAGE: 106430"
//clone="INAGE: 106430"
//clone="Organ: Head, Vector: pYx-Asc; Site 1: EcoR I;
Site 2: Not I; The library was constructed according
Bonaldo, Lennon and Soares, Genome Research, 6:791-806,
1996. Denatured RNA was size fractionated on a 1% agarose
gel.First strand cDNA synthesis was primed with oligo-dT
primer containing a Not I site. Double strand cDNA was
size selected according to mRNA size fraction, ligated
with EcoR I adaptor, digested with NotI and then cloned
directionally into pYx-Asc vector. The library teg
sequence located between the Not I site and the polyA tail
is CGAACTGAAT. This library was created for the University
lowa Brain Anatomy Project (BMAP): 'Gene Discovery in the
Developing Mouse Nervous System', supported by National
Institute of Mental Health (NIMH)."
                                                                                                                                                                                                                         Bmail: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. James Lin University of Iowa
cDNA Library preparation: Dr. M. Bento Soares, University of Iowa
cDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
cDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Distribution information can be found at
http://genome.uiowa.edu/distribution/information.can be found at
This clone was contributed by the Brain Molecular Anatomy Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           148 ACACAAGCGCGCACACACAGCTCCGCACACACTTCGCTCTCCCGCGCGCTCACACCCCT 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 802)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  122 GGCTCACTTTGCAACGCTGACAGAGCCCGCAGTGTCCGTGGAGGTGGGAAACGTGGCGAC 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCATGAGTTGGGATCGCAGCATCCCCCGCCAGCCGCTCACCGCCTCTGGGAGCCGCTGG 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              443 GCTTGTACACCGCAGCCCTTCCGGGACAGCAGCTGTGACTCCCCCCCAGTGCAGATTTCG 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTGCCCTGAGCCCTTGCCGGT----GCAGCGCGCGCGCCGCAGCTGGACGCCCCTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCACTTTGCAACGCTGACGGTGCCGGCAGTGGCCGTGGAGGTGGGAACAGCGGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       182 ATCCTACCCCCTGGTCGCAGCCGGAGACTGCCTGCGGGAACCTCTCGGCGCGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCCTCCCCCCTGGTCACAGCCCAAGCCAGGACGCCCGCGGAACCTCTCGGCTGTGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCATGAGTCGGGATCGCAGCATCCCCCACCAGCCGCTCACCGCCTCACGGGAGCCGCTGG
                                                                                                                    NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                   (BMAP)
The following repetitive elements were found in this cDNA sequence: 86-116, >GC_rich#Low_complexity
Seq primer: pYX-5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 802;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14.6%; Score 555.4; DB 7;
85.6%; Pred. No. 1.2e-123;
tive 0; Mismatches 104;
                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
Mus musculus (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 688; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                          ORGANISM
                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
SOURCE
```

셤 ઠે 셤

δ

g ò 요

ઠે

ద

8

ઠ

us-10-608-863-1.rst

```
2249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2370 TGGGTTAAAAGAACCAAAGAGAGTCGAAGAGCTATGCAACAACAAGATCACAAGCAGTTTAAA 2429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2430 AGACCACAGAGTAAGGGACAGGCTCTGGAGCCCACCGAGTCCAAGGTCCTGGGTGCCCT 2489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGTAGAACTGAGGAAGATCTGCACCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGA 2549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2610 ATCAGGAGCAG-TGGAGCAGTGAGCTGCTCCTCTTAGCACCTGCTTGCTACGCAGCA 2668
                                                                                                                                                                                                                                             2189
                                                                                                                                                                                                                                                                                                                                                                                    TCGTGGATTTGGGGAGTGGCTCGACTCTATTAAAGACTTTTCCTTAAATTTGCAGAGCCT 2309
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2310 GAACCTTGATATCCAAGCCTTAGCCTGCCTGTCAGCACTGAGCATGATCACAGAAGACA 2369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2550 AGACTIGGIGICICCACCTICCATCATIGACAAGCICTICCIGGACACCCTACCTITCIA 2609
                                                                                                                                                                 2070 ATCCAGAAGCTGGGCAGAAAAGATTCCGGGATTTACTGATCTCCCCAAAGAAGATCAGAC 2129
                                                                                                                                                                                                                                         2130 ATTACTTATTGAATCAGCCTTTTTGGAGCTGTTTGTCCTCAGACTTTCCATCAGGTCAAA 2189
584 ATTACTTATAGAATCAGCCTTTTTGGAGCTGTTTGTTCTCAGACTTTCCATCAGGTCAAA 525
                                                                                                                                                                                                                                                                                                                                                    465
                                                                                                                                                                                                                                                                                                                                                                                                                        405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  404 GAACCTTGATATCCAAGCTTTAGCCTGCCTGTCAGCACCAGAGCATGGTCACAGAACGACA 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      224 GGTAGAACTGAAGAACTGGACCCTGGGCCTCCAGCGCATCTTCTACCTGAAGCTGGA 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164 AGACTTGGTGCCCCACCTTCCATCATCGACAGCTCTTCCTGGACACCCTGCTTTTCTG 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2190 CACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTGCCT
                                                                                                                                                                                                                                                                                                                                     524 CACTGCTGAAGATAAGTTTGTGTTCTGCAATGGACTTGTCCTGCATCGACTTCAGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                             464 TCGTGGATTTGGGGGAGTGGCTCGACTCCATTAAAGACTTTTCTTTAAGTTTGCAGAGCTT
                                                                                                                                   Gaps
Library made with RNA pooled from multiple tissues including liver, lung, hypothalamus, pituitary, and placenta/endometrium."
                                                                                                                                 1;
                                                                                              Query Match
14.6%; Score 552.6; DB 6; Length 644;
Best Local Similarity 92.2%; Pred. No. 5.3e-123;
Matches 593; Conservative 0; Mismatches 49; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2490
                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                ò
```

Search completed: March 21, 2005, 20:40:37 Job time : 11552 secs

Human NUR Human NUR Human Pro Human pro Human pro Pro polyp Mouse nuc Murine NU Murine NU Murine NU Murine NU Murine NU Murine NU Murine NU Murine NU Murine NU

Adb84968 1
Adb8389 1
Adb814070 1
Ade25771 1
Adb75170 1
Adb75170 1
Adb84065 Adb84065 Adb84065 Adb84065 Adb84065 Adb84065 Adb84065 Adb84061

Mouse Flg Rat Nurrl Rat nur77

Rat NURR1 Prote

score:

Sequence:

ı

OM protein

Run on:

Scoring table:

Searched:

Database

```
This invention relates to a novel method for examining allergic diseases that comprises comparing the expression levels of a gene encoding the NOR -1 receptor protein between patients and healthy individuals. Specifically, the NOR-1 gene, also referred to as MINOR, is expressed in nediating an allergic reaction. The present invention describes a differential display method that can identify the expression level of this gene in order to identify its usefulness in diagnosing allergic diseases such as atopic dermatitie. Furthermore, compositions can also be used to screen compounds for the treatment of allergic diseases.

Accordingly, they exhibit various activities including antiallergic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Examining allergic diseases e.g. atopic dermatitis by differential display based on gene expression of NOR-1 receptor protein, also applicable in screening compounds for treatment of allergic diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human; receptor; allergic disease; NOR-1; MINOR; eosinophil; atopic dermatitis; antiallergic; antiinflammatory; dermatological.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Saito H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human NOR-1 (MINOR) protein sequence SeqID 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hashida R, Kagaya S, Yayoi Y, Sugita Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; SEQ ID NO 2; 155pp; Japanese.
                        ADB83989
ADB84070
ADB85907
ADB25771
ADB75705
ADP23740
ADB84074
ADB84067
ADB84067
ADB84067
ADB84067
ADB86069
ADB86069
ADB86069
ADB86069
ADB86069
ADB86069
ADB86069
ADB86069
ADB86069
ADB86069
ADB86069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADI13008 standard; protein; 626 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GENO-) GENOX RES INC.
(NIGE-) JAPAN GEN AGENCY NATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-JUN-2003; 2003WO-JP008199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-JUN-2002; 2002JP-00188490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-APR-2004 (first entry)
  WPI; 2004-083057/08.
N-PSDB; ADI13007.
0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO2004003198-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-JAN-2004.
ADI13008;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADI13008
     Pig nor-1
Human PRO
Human NF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Apoptopic
Murine Ne
Rat Prote
Rat nor-1
Murine Ne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human NOR
Human Pro
Human nor
Human nuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human nuc
Human NOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pig nor-1
Mouse nuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUR
NUR
NUR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nnc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human NOT
                                                                                                                                                                             March 12, 2005, 17:36:21; Search time 170 Seconds (without alignments) 1424.188 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human
Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human
Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human |
Human |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human
                                                                                                                                                                                                                                                                                                                                             1 MPCVQAQYSPSPPGSSYAAQ......EDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Add13008 HAdd4595 HAdd45895 HAdd57171 HAdd57171 HAdd5895 HAdd28878 HAdd18326 HAdd98438 hAdd98438 hAdd98439 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98437 HADD98465 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HADD9466 HAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2105692
                        GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2105692 segs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                 protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU96995
ADF28882
ADF28882
ADL83262
ADR14063
AAR92057
ABB98438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADD45995
ADF28879
ADP05709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADL57171
AAW16398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADF28880
ABB98437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR48631
AAU09156
AAB35156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABR42448
ADB84066
ADB84062
ADB84067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADF28881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADP05711
                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A_Geneseq_16Dec04:*
11: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp201s:*
6: geneseqp203s:*
7: geneseqp203ss:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                   US-10-608-863-2
3337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00
```

Result Š. 3054.5 2099.5 2036.5 1751 1751 1751 1751 1751 1751 1751

14-AUG-2001; 2001US-0312147P. 01-NOV-2001; 2001US-0346382P. 26-NOV-2001; 2001US-0333347P.

14-AUG-2002; 2002WO-US025765

SXSS

셤

요 ò

ò

8

8

ò

```
ò
                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                        FVEGYSSNYELKPSCVYQMQRPLIKVEBGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                       121 SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE 360
                                                                                               9
                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMITERHGLKEPRRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELKKICTLGLQR
                                                                                                            1 MPCVQAQYSPSPPGSSXAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                      HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                    HPYGLPLAKRAAPLAPPPLGLTPSPTASSLLGESPSLPSPPSRSSSGGGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                            VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                               1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                         FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                                                    SSPEDEVLPSTSMYFKOSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                            PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                  PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                   PIDOAAAGIDAEHVQQFYNLLIASIDVSRSWAEKIPGFIDLPKEDQILLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                               RISIRSNTAEDKFVFCNGLVLHRLOCLRGFGEWLDSIKDFSLNLOSLNLDIQALACLSAL
antiinflammatory and dermatological. This polypeptide sequence is the human NOR-1 protein sequence of the invention.
                                                                           Gaps
                                                                           ..
                                                       Length 626;
                                                                          Indels
                                                    Query Match 100.0%; Score 3337; DB 8; Best Local Similarity 100.0%; Pred. No. 1.6e-222; Matches 626; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 626 AA
                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                           61
                                                                                                                                                                                    121
                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                      음
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
```

```
121
                                                                                                                         181
                                                                                                g
                                                                                                                                                 셤
g
                                                셤
                                                                       ò
                                                                                                                         ò
                                                                                                                                                                         ò
                          ઠ
                                                                                                 pain; neuronal tissue; gene therapy; segmental nerve injury; chronic constriction injury; CCI; nerve injury; SNI; Chung.
                                                                             Human Protein Q92570, SEQ ID NO 11667
      ADD45995 standard; protein; 626
                                                       (first entry)
                                                                                                                                                                             WO2003016475-A2
                                                                                                                                                      Homo sapiens
                                                    29-JAN-2004
                              ADD45995;
                                                                                                                spinal
spared
```

27-FEB-2003

New composition comprising two or more isolated polypeptides, useful preparing a medicament for treating pain in an animal. Costigan M; ftp.wipo.int/pub/published\_pct\_sequences. Befort K, Claim 1; Page; 1017pp; English (GEHO ) GEN HOSPITAL CORP. (FARB ) BAYER AG. D'urso D, WPI; 2003-268312/26. GENBANK; Q92570. Sequence 626 AA; Woolf C,

Gaps ; 0 1; Indels 99.9%; Score 3333; DB 7; 99.8%; Pred. No. 3.1e-222; iive 0; Mismatches 1; Matches 625; Conservative Query Match Best Local Similarity

240 241 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPSRSSSSGEGTCAVCGDNAA 300 180 61 FVEGYSSNYELKPSCVYQMQRPLIKVEBGRAPSYHHHHHHHHHHHHHHHHQQQHQQPSIPPA 120 241 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGGGTCAVCGDNAA 300 9 SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES 181 PIVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAALSLPLGAAAAAGSQAAALBG 1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST 61 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA 1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST

Tue

```
RESULT
88888888
                                                                                                                                     ò
                                                                                                                                                      임
                                                                                                                                                                                ò
                                                                                                                                                                                                  පු
                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present sequence is that of human nor-1 nuclear receptor polypeptide 092570. Nor-1 has been identified as a molecular target for therapeutic intervention in the treatment of myeloid leukaemia. The invention provides methods of inhibiting the proliferation of a haematopoietic stem cell or a haematopoietic myeloid cell by modularing the level of a nor-1 and/or nur77 nuclear receptor. This involves increasing the level of the receptor polypeptide or polynucleotide, e.g. by administration of a vector comprising the polynucleotide. A claimed method of treating leukaemia comprises modulating a nor-1 and/or nur77 nuclear receptor in a haematopoietic stem cell or myeloid cell. Also claimed are methods of
                                                                                                  480
                                                                                                                                                540
                                                                                                                                                                                            600
                                 360
                                                      420
                                                                            420
                                                                                                                        480
                                                                                                                                                                     540
                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Inhibiting proliferation of a hematopoietic cell, useful for treating or preventing leukemia, comprises modulating the level or activity of nor-1 and/or nur77 nuclear receptor.
          COHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                      CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                      VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                        SMITERHGLKEPKRVEELCNKITSSLKDHOSKGOALEPTESKVLGALVELRKICTLGLOR
                                                                   VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                  PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                               PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                              RISIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                   RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                          SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                receptor; leukaemia; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                         nor-1 nuclear receptor polypeptide Q92570,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; SEQ ID NO 14; 101pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ۵,
                                                                                                                                                                                                                                        626
                                                                                                                                                                                                                                                      Milbrandt
                                                                                                                                                                                                                                        IFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                       626
                                                                                                                                                                                                                                                                                                                                                                                                              nor-1; nuclear receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                          cytostatic; haematopoietic cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COLLEGE MEDICINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-APR-2002; 2002US-0373238P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-APR-2003; 2003WO-US011804
                                                                                                                                                                                                                                                                                                                     standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mullican SE, Conneely OM,
                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BAYLOR COLLEGE M
UNIV WASHINGTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2003-854017/79.
                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO2003088812-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENBANK; Q92570.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens.
                                                                                                                                                                                                                                                                                                                                                                  12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-OCT-2003
                                                                            361
                                                                                                                                                                                                                                      601
                                                     361
                                                                                                                        421
                                                                                                                                                                                                                                                                                                                     ADF28879
                              301
                                                                                                  421
                                                                                                                                              481
                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                            ADF28879;
          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BAYU) E
                                                                                                                                                                                                                                                                                                                                                                                                                Human;
                                                                                                                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ношо
                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                 셤
                                                                                                                                                                                                             엄
                                                    ઠે
                                                                         원
                                                                                                                                             ઠે
                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                            8
                            8
                                                                                                 ઠે
                                                                                                                                                                                         ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             disease risk; disorder risk; mutation; polymorphism; nuclear receptor protein; antibacterial; antithyrold; cardiovascular-Gen; cytostatic; dermatological; eating-bisorders-Gen; gastrointestinal-Gen; gynaecological; hepatotropic; immunosuppressive; muscular-Gen; nephrotropic; osteopathic; virucide; adrenal gland; colon; cardiovascular; intestine; kidney; liver; lung; muscular; ovary; blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                            61 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALBG /240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA 300
                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                         9
identifying an upregulator of expression of nor-1 and/or nur77, of identifying a compound for the treatment of leaveamia, and of screening for a compound for treatment of leukaemia, and a mouse model for leukaemia comprising a mouse having defective nor-1 and nur77 nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                         1 MPCVQAQXSPSPPGSSXAAQTYSSEYTTEIMNPDYTKLTWDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                              FVEGYSSNYELKPSCVYOMORPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGGWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                            1 MPCVQAQYSPSPPGSSYAAQTYSSBYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 SSPEDEVLPSTSMYFKOSPPSTPTTPAFPPOAGALWDEALPSAPGCIAPGPLLDPPMKAX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PTVAGAR FPLFH FKPS PPHPPAPS PAGGHHLGYD PTAAAALS LPLGAAAAAGS QAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                            Length 626;
                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                            ä
                                                                                                                                                                                                       99.9%; Score 3333; DB 7; 99.8%; Pred. No. 3.1e-222; ive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human nuclear receptor protein SeqID83.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601 IFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADP05709 standard; protein; 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                            Matches 625; Conservative
                                                                                                                                                                                                                                  Similarity
                                                                                                                                                          Sequence 626 AA
                                                                                                          acid sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADP05709;
                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                       Best Local
```

```
This invention relates to a novel method of determining whether a patient chas an increased risk for developing a disease or disorder which comprises determining the presence of a mutation or polymorphism in the patient. See see encoding a nuclear receptor protein or measuring the expression or level of biological activity of a nuclear receptor protein or measuring the expression or level of biological activity of a nuclear receptor of polypeptide in the patient or in a cell of the patient. The invention may considered or ardiovascular-Gen, groupounds with an antibacterial, antithyroid, cardiovascular-Gen, groupounds with an antibacterial, or insordere-Gen, gastrointestinal-Gen, groupounds with an antibacterial, or pisordere-Gen, gastrointestinal-Gen, groupoptic, osteopathic or virucide activity. The method is useful for determining whether a patient has an increased risk for developing a disease or disorder. The nucleic acid operably linked to a promoter, or a compound that the nucleic acid operably linked to a promoter, or a compound that the nucleic acid operably linked to a promoter, or a compound that the mucleic acid operably linked to a promoter, or a compound that the uncleic acid operably linked to a promoter, or a compound that the uncleic acid operably linked to a promoter, or a compound that the mucleic protein structure, studies, thymus, thyroid, ovary, blood, prostate, studie, pleen, stomach, testes, thymus, thyroid, or trerus, pancreas, bone and joints, breast, or immune system, or metabolic or nutritive disease or disorder. The present sequence is that of a nuclear receptor protein which may be used in the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Determining an increased risk for e.g. colon, brain or breast disease or disorder, by detecting a mutation or polymorphism in the nuclear receptor gene, or measuring expression or biological activity level of the nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SSPEDEVLPSTSMYFKQSPPSTFTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
prostate; skin; spleen; stomach; testes; thymus; thyroid; uterus; pancreas; bone; joint; breast; immune system; metabolic; nutritive disease; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                     Li F;
Zeng H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 3333; DB 8; Length 626;
Pred. No. 3.1e-222;
0; Mismatches 1; Indels 0
                                                                                                                                                                                                                                                                                                                                     A, Hohmann J,
Vassilatis D,
                                                                                                                                                                                                                                                                                                                                       JE, Gracerov
Pavlova MN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; SEQ ID NO 83; 508pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.9%;
                                                                                                                                                                                                               12-NOV-2003; 2003WO-US036229.
                                                                                                                                                                                                                                                        14-NOV-2002; 2002US-0426305P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 99.8 Matches 625; Conservative
                                                                                                                                                                                                                                                                                                                                       Gaitanaris GA, Bergmann
Madisen L, Mcilwain KL,
                                                                                                                                                                                                                                                                                                                                                                                                      2004-449627/42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 626 AA;
                                                                                                                                                                                                                                                                                                   (NURA-) NURA INC.
                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; ADPO5710
                                                                                                                                 WO2004045369-A2
                                                                                            sapiens.
                                                                                                                                                                          03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               receptor.
                                                                                            Homo
          පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

ö

9 9

```
480
                                                                                                                                                  480
                                                                                                                                                                                                  540
                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                360
                                                                         360
                                                                                                420
                                                                                                                         420
                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antiarteriosclerotic; anorectic; virucide; antibacteria; fungicide; protozoacide; nootropic; neuroprotective; antibacteria; fungicide; protozoacide; nootropic; neuroprotective; antibarkinsonian; anticonvulsant; osteopathic; antiarthritic; antiniflammarcory; fibroblast growth factor receptor 4; FGFR4; complement factor Interest matrix metalloproteinase-15 precursor; MDC3; T-lymphocyte surface antigen Ly-9 precursor; fibroblast growth factor-21; FGF-21; fibroblast growth factor-21; FGF-21; alpha-2 macroglobulin-like polypeptide variant; antileukoproteinase 1 precursor; LIV-1; nuclear hormone receptor NOR-1; transmembrane protein-like; beta-neoendorphin-dynorphin precursor.
                                                                                                                                                 PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                541 SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                       HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGEGTCAVCGDNAA
                                                COHYGVRICEGCKGFFKRIVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                             VVRIDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                             RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human; antidiabetic; anorectic; cardiant; hypotensive;
                                                                                                                                                                                                                                                                                                      626
                                                                                                                                                                                                                                                                                                                 IFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human NOV9i protein SEQ ID NO:116.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-SEP-2002; 2002US-0409145P.
10-SEP-2002; 2002US-0409544P.
12-SEP-2002; 2002US-041032DP.
16-SEP-2002; 2002US-0411060P.
23-SEP-2002; 2002US-0412766P.
23-SEP-2002; 2002US-0412825P.
24-SEP-2002; 2002US-0412842P.
30-SEP-2002; 2002US-041342P.
                                                                                                                                                                                                                                                                                                                                                                                            ADL57171 standard; protein; 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-SEP-2003; 2003WO-US028141.
                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2004022723-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-MAR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                     ADL57171;
                                                                                                                                                                                                                                                                                                        601
                            241
                                                     301
                                                                             301
                                                                                                       361
                                                                                                                              361
                                                                                                                                                        121
                                                                                                                                                                               421
                                                                                                                                                                                                       481
                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                              601
      241
                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                            셤
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                       ò
                                                                                                                             g
                                                                                                                                                        ð
                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                       ò
                          용
                                                      8
                                                                             g
                                                                                                       ð
```

```
The invention relates to a novel isolated polypeptide (NOVX) comprising a mature form of any of the 37 amino acid sequences fully defined in the pecification. A polypeptide of the invention has antidabetic, anorectic, cardiant, hypotensive, antiarreniosclerocic, anorectic, cardiant, hypotensive, antiarreniosclerocic, anorectic, cardiant, hypotensive, anticonvulsant, osteopathic, neuroprotective, antiparkinsonian, anticonvulsant, osteopathic, antibaterial fungicide, protozoacide, noctropic, cardiantipathic, antibaterial fungicide, protozoacide, noctropic, antibaterial fungicide, anticonvulsant, osteopathic, neuroprotective, antiparkinamatory, dermatological, antisathmatic, and cardiantiformatory, dermatological, antisathmatic, and cardial protocoacide, antipathmatory, dermatological, antisathmatic, and associated with a human disease, preferably a NOVX-associated disorder.

CC are useful in the manufacture of a medicanent for tracting a syndrome associated with a human disease, preferably a NOVX-associated disorder.

CC diabetes, obesity, infectious diseases ucts, bacterial, fungal, treating, preventing or diagnosing diseases (viral, bacterial, fungal, classes, palypeptides and antibodies are useful for treating and protocoal), anorexia, cancer, cardiovascular diseases

(Mypertension, atherosoclerosis), neurodegenerative disorders, Alzheimer's disease, parkinson's disease, epilepsy, immune disorders, Alzheimer's costenar, and various dyslipideamias. The mucleic acids and polypeptides comy as the mation of small molecules asthma, and various dyslipideamias. The mucleic acids and polypeptides comy as measured that modulate or inhibit e.g. neurogenesis, cell differation, hematopoiesis, wound healing and publically to NoVX substances for use in therapeutic or diagnosic methods.

CC cids are further used as hybridiation probes, in chromosome mapping, tissue typing, preventive medicine, and pharmacogenomics. The NoVX substant shows homology to complement factor I precursor; NOV3 and propertion of antiledy to complemen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           norphin precursor. The present sequence represents a NOVX polypeptide
                                                                                                              isolated NOVX polypeptides and polynucleotides, useful for venting, diagnosing or treating NOVX-associated disorders, e.g. eoarthritis, obesity, atherosclerosis, cancer, Parkinson's disease,
  Rieger DK;
  Padigaru M,
Ę
                                                                                                                                                                                                                              Claim 1; SEQ ID NO 116; 214pp; English.
  Ort
Anderson DW,
                                                                                                                                                                                     asthma, or infections
                                           WPI; 2004-315567/29.
N-PSDB; ADL57170.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the invention.
Guo X,
                                                                                                                                        preventing, diaç
osteoarthritis,
Zhong M,
                                                                                                                  New
```

Sequence 626 AA;

```
ö
                                                                                                                                   180
                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                            240
                                                                                                                     FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                             PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES 240
                                                            9
                                                                                        9
                                                                                                                                                                                   SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                   SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                               PTVAGARFPLFHFKFSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALEG
                                                          1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                             MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                              Gaps
                              .;
0
99.4%; Score 3316; DB 8; Length 626; 99.4%; Pred. No. 4.6e-221;
                            Indels
                               ä
            Pred. No. 4.6e-221;
1; Mismatches 3;
                              Conservative
              Best Local Similarity
Matches 622; Conserv
                                                                                                                      61
                                                                                                                                                     61
                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                   121
                                                                                                                                                                                                                                             181
Query Match
                                                                                                                                                 g
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                          셤
                                                                                       a
                                                                                                                     ò
                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                             ò
                                                            ठ
```

```
۵
                  HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGGGTCAVCGDNAA 300
                                                                                    360
                                                                                                                                      361 VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPICMMNALVRALTDSTPRDLDYSRYC 420
                                                                                                                                                                                                        480
                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human neuron-derived orphan nuclear receptor gene - useful for diagnosing
brain diseases such as Alzheimer's or Parkinson's disease or
                                                       COHYGVRICEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSVGMVKB 360
                                                                                                                  VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC 420
                                                                                                                                                                            PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human, neuron-derived orphan receptor; open reading frame; homology; rat; NOR-1; DNA binding domain; brain; neuronal; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nuclear receptor. The protein has high homology to the rat NOR-1 receptor. The protein contains several DNA binding domains including P, and A boxes which also have high homology to the rat NOR-1 DNA binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This is the amino acid sequence of a novel human neuron-derived orphan
                                                                                                                                                                                                                                                                                                              SMITERHGLKEPKRVEBLCNKITSSLKDHQSKGQALBPNESKVLVALVELRKICTLGLQR
                                                                         CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                            PIDQAAAGTDAEHVQQFYNLLTASIDVSRSWAERIPGFTDLPKEDQTLLIESAFLELFVL
HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                       RISIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                 481 RESIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human neuron-derived orphan receptor NOR-1 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      291. .377 /note= "DNA binding domain"
                                                                                                                                                                                                                                                                                                                                                          626
                                                                                                                                                                                                                                                                                                                                                                       601 IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                          IFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 5-8; 8pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW16398 standard; protein; 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95JP-00242909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95JP-00242909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NOR-1; DNA binaing uc
Parkinson's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1997-253003/23.
N-PSDB; AAT73334.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TERU ) TERUMO CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           neuroblastoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JP09084585-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-MAR-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-SEP-1997
                             241
                                                         301
                                                                                    301
                                                                                                                                                                                                                                                                                                                             541
                                                                                                                  361
                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW16398;
 241
                                                                                                                                                                                                        421
                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW16398
                                                                                   셤
                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                         8
                                                                                                                   Š
                                                                                                                                             셤
                                                                                                                                                                            ò
                                                                                                                                                                                                                                       ઢ
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                          ઠે
```

Bresihan

ò

Fitzgerald

us-10-608-863-2.rag

8899888

```
(BAYU ) BAYLOR COLLEGE MEDICINE
                                              11-MAY-2001; 2001WO-US015311
                                                                       12-MAY-2000; 2000US-0203645P
                                                                                                                       ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 625 AA;
WO200187923-A1
                        22-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                        ы
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                     Claim 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                        Murphy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
  %$GGGGGGGGGGGGGGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              009
                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                 COHYGVETCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE 360
                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                 VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMVALVRALTDSTPRDLDYSRYC 420
                                                                                                                                                            9
                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human, nuclear receptor, NURR; inflammatory immune disease, arthritis, corticotropin releasing hormone, receptor, CRH; rheumatoid arthritis; chronic inflammatory joint disease; psoriatic arthritis; thyroiditis; sarcoid arthritis; ulcerative colitis; NOR1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMITERHGLKEPKRVEELCNKITSSLKDHOSKGOALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                  HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHHHHQQQPQPSIPPA
                                                                                                                                                                                                                                                CQHYGVRICEGCKGFFKRIVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                          1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                    FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                                                                                                    SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                   PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPSRSSSSGEGTCAVCGDNAA
 domains. The nucleic acid and protein can be used to diagnose brain neuronal diseases, e.g. Alzheimer's disease, Parkinson's disease. Further, the genetic diseases can be treated using the receptor as it inhibits expression of a gene by binding to it
                                                                                                              Gaps
                                                                                                            ; 0
                                                                                                            Indels
                                                                                     Score 3301; DB 2; Length
Pred. No. 5e-220;
2; Mismatches 5; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human nuclear receptor NOR1 protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard; protein; 625
                                                                                     98.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                               Conservative
                                                                                       Query Match
Best Local Similarity
Matches 619; Conserv
                                                                 Sequence 626 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU96995
                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU96995,
                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                      121
```

g Š 음

ò

g

8

g

g ò 셤 à 셤 ò g ઠે g ò 셤 ò 셤

ò

```
The present invention relates to a new method of treating an organism for an inflammatory immune disease. The method of the invention comprises reducing expression of a NURR subfamily nucleic acid sequence or corricotropin releasing hormone (CRH) receptor nucleic acid sequence, inhibiting transcriptional activity of a NURR superfamily member/CRH ceeptor amino acid sequence, or reducing the level of NURR superfamily member/CRH receptor amino acid sequence. The method is useful for treating an companism for an inflammatory immune diseases such as chronic inflammatory joint disease, preferably arthritis, selected from rheumatory and sarcoid arthritis, ulcerative colitis and thyroiditis. The method is also useful for screening a compound that interferes with interaction of a NURR subfamily polypeptide with a cinearferes with interaction of a NURR subfamily polypeptide and the cinear receptor polypeptide and the canadonist is useful for decreasing the expression of a NURR subfamily compound the invention activity of nuclear receptor polypeptide and the categorist is useful for decreasing the expression of a NURR subfamily member. The present amino acid sequence represents the human nuclear receptor NORI protein of the invention. This sequence is an antagonist of the invention. The sequence is an antagonist of the invention in the sequence is not shown in the specification but was obtained from Genbank (7441771)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
Treating inflammatory immune disease such as arthritis, comprises suppressing expression level of NURR subfamily of nuclear transcription factors, or corticotropin releasing hormone receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MPCVQAQYSPSPPGSSXAAQTYSSEXTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 FVEGYSSNYELKPSCVYQMORPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98.9%; Score 3299.5; DB 5; Length 625; 99.2%; Pred. No., 6.4e-220; ive 1; Mismatches 3; Indels 1;
                                                                                                                                            Page; 123pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 621; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

361

Homo sapiens

AAU96995 RESULT

```
WO2003088812-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pig; nor-1;
cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-OCT-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sus scrofa.
                                                                                                                                                                                                                                                          241
                                                                                                            61
                                                                                                                                                          121
                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADF28882;
                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 9
ADF28882
                                                                                 셤
                                                                                                                                                                                셤
                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                              셤
                                                                                                                                                         ઠે
                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is that of human nor-1 nuclear receptor polypeptide intervention in the treatment of myeloid leukaemia. The invention provides methods of inhibiting the proliferation of a haematopoietic stem provides methods of inhibiting the proliferation of a haematopoietic stem cell or a haematopoietic myeloid cell by modulating the level of a nor-1 and/or nur77 nuclear receptor. This involues increasing the level of the receptor polypeptide or polymucleotide, e.g. by administration of a receptor polypeptide or polymucleotide. A claimed method of treating leukaemia comprising the polymucleotide. A claimed method of treating haematopoietic stem cell or myeloid cell. Also claimed are methods of identifying an upregulator of expression of nor-1 and/or nur77. of identifying a compound for the treatment of leukaemia and of screening for a compound for the treatment of leukaemia, and a mouse model for leukaemia comprising a mouse having defective nor-1 and nur77 nucleic
                                                                                                                        9
                                                 479
                                                                                                                                               599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Inhibiting proliferation of a hematopoietic cell, useful for treating or preventing leukemia, comprises modulating the level or activity of nor-1 and/or nur77 nuclear receptor.
361 VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                           SMITERHGLKEPKRVEFLCNKIISSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                   SMITERHGLKEPKRVEELCNKITSSLKDHOSKGQALEPNESKVLVALVELRKICTLGLQR
                                                                                    PIDQAAAGTDAEHVQQFYNLLIASIDVSRSWAERIPGFTDLPKEDQTLLIESAFLEL-VL
                                                                      RISIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                         PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                       Human; nor-1; nuclear receptor; receptor; leukaemia; gene therapy;
cytostatic; haematopoietic cell.
                                                                                                                                                                                                                                                                                                                                Human nor-1 nuclear receptor polypeptide 744171.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 13; 101pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Milbrandt J;
                                                                                                                                                                                  IFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                        ADF28878 standard; protein; 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BAYU ) BAYLOR COLLEGE MEDICINE. (UNIW ) UNIV WASHINGTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-APR-2003; 2003WO-US011804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-APR-2002; 2002US-0373238P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conneely OM,
                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003-854017/79.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENBANK; 7441771
                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003088812-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 625 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                scid sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mullican SE,
                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                        12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                            30-0CT-2003
                                              421
                                                                                               480
                                                                                                                                             540
                        421
                                                                      481
                                                                                                                                                                     601
                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                ADF28878;
                                                                                                                                           셤
                                                                                                                                                                                                                                                          8
                                                                                            셤
                                                                                                                                                                    ઠે
                                                                                                                                                                                            셤
                        ò
                                                                      ઠે
                                                                                                                     ઠે
```

```
ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGEGTCAVCGDNAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301 CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKB 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                      9
                                                                                                                                                                                                                                          61 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAERIPGFTDLPKEDQTLLIESAFLEL-VL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MPCVQAQYSPSPBGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                      FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                                                                                                                                                                                SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                              121 SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                                                                                    PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 PIVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WARTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nuclear receptor; receptor; leukaemia; gene therapy; haematopoietic cell.
                                                     ï
     625;
     Length
                                                     Indels
  Score 3299.5; DB 7
Pred. No. 6.4e-220;
1; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pig nor-1 nuclear receptor polypeptide CAA09763.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600 IFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADF28882 standard; protein; 643
  98.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-APR-2003; 2003WO-US011804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-APR-2002; 2002US-0373238P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
Query Match
Best Local Similarity 99.2
Matches 621; Conservative
```

```
Disclosure; SEQ ID NO 17; 101pp; English.
          Mullican SE, Conneely OM,
                                                                                                                           Conservative
                 WPI; 2003-854017/79.
GENBANK; CAA09763.
                                                                                                                       Similarity
                                                                                                             Sequence 643 AA;
                                                                                                      sednences
                                                                                                                           Matches 594;
                                                                                                                                                                                                                  301
                                                                                                                                                                                                                          344
                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                       464
                                                                                                                                                 61
                                                                                                                                                                              169
                                                                                                                                                                                     181
                                                                                                                                                                                             227
                                                                                                                                                                                                           284
                                                                                                                                                               111
                                                                                                                    Query Match
Best Local S
(BAYU ) E
                                                                                                                                                                                                   g
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                              요
                                                                                                                                                                      ద
                                                                                                                                                                                     셤
                                                                                                                                                                                            8
                                                                                                                                                                                                           ð
                                                                                                                                          g
                                                                                                                                                 ò
                                                                                                                                                        g
                                                                                                                                                               ò
                                                                                                                                                                              8
ठ
```

```
The present invention relates to PRO proteins and their coding sequences.

The PRO proteins are useful for diagnosing and treating a B cell related disorder, e.g. X-linked infantile hypogammaglobulinemia, polygacharide antigen unresponsiveness, selective IgA deficiency, selective IgA deficiency, selective IgA deficiency, selective IgA deficiency, burkit's compared the lymphoma, intermedate lymphoma, follicular lymphoma, thermedate lymphoma, follicular lymphoma, type II charmedate lymphoma, follicular lymphoma, type II charmedate lymphoma, tollicular lymphoma, type II charmedate lymphoma, projective architis, autoimmune mediated haemolytic namenia, myasthenia gravis, hypoadrenocorticism, glomerulonephritis, or ankylosing spondylitis. The PRO proteins are also useful for preparing a condition that is responsive to the PRO protein, e.g. cancer or immune-mediated inflammatory diseases. The PRO coding sequences are useful as hybridization probes in chromosome and commands in preparing PRO proteins, or in generating transgenic animals or knockout animals, which in turn are useful in the development can ascening of therapeutically useful reagents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New PRO polypeptide, useful for diagnosing and treating a B cell related disorder, e.g. Burkitt's lymphoma, rheumatoid arthritis, autoimmune mediated hemolytic anemia, myasthenia gravis or ankylosing spondylitis.
Immunosuppressive, Cytostatic; Antiarthritic; Antirheumatic; Antianemic; Antiallergic; Muscular; Neuroprotective; Nephrotropic; Antiinflammatory; Gene Therapy; PRO; B cell related disorder; cancer; immune-mediated inflammatory disease; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 3123; DB 8; Length 5 Pred. No. 1e-207; 0; Mismatches 1; Indels
                                                                  626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Schoenfeld JR,
                                                                                          LGALVELRKI CTLGLQRI FYLKLEDLVSPPSI I DKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fong S,
                                                                                                                                                                                                                     Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 10; Fig 464; 695pp; English.
                                                                                                                                                                                                                   ADL83262 standard; protein; 587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93.6%;
illarity 99.8%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-SEP-2003; 2003WO-US029097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-SEP-2002; 2002US-0411392P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dennis K,
                                                                                                                                                                                                                                                                                                                                       Human PRO84725, SEQ ID 464.
                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-329389/30.
N-PSDB; ADL83261.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Clark H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 587 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO2004024097-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Simi
Matches 586;
                                                                                                                                                                                                                                                                                                     17-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                           584
                                                                                                                  601
                                                                                                                                                                                                                                                              ADL83262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chiu H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                      ADL83262
                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                g
                                                                             à
                                                                                                                                                                                                                                                                                                     The present sequence is that of pig nor-1 nuclear receptor polypeptide CAA09763. Nor-1 has been identified as a molecular target for therapeutic intervention in the treatment of myeloid leukaemia. The invention context on a provides methods of inhibiting the proliferation of a haematopoietic stem cell or a haematopoietic myeloid cell by modulating the level of a nor-1 and/or nur77 nuclear receptor. This involves increasing the level of the receptor polypeptide or polynucleotide, e.g. by administration of a cuetor comprising the polynucleotide. A claimed method of treating teukaemia comprises modulating nor-1 and/or nur77 nuclear receptor in a leukaemia comprises modulating cell. Also claimed are methods of identifying a compound for the treatment of leukaemia, and of screening for a compound for the treatment of leukaemia, and a mouse model for contracting a mouse having defective nor-1 and nur77 nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ä;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RALTDSTPRDLDYSRYCPADQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPK 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLN 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         524 LOSINLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKV 583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                Inhibiting proliferation of a hematopoietic cell, useful for treating or preventing leukemia, comprises modulating the level or activity of nor-land/or nur77 nuclear receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RALTDSTPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FVEGYSSNYELKPSCVYQMQ----RPLIKVEEGRAPSYHHHHHHHHHHHQQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 FWEGYSSNYELKPSCLYQWQPSGPRPLIKWEEGRAHGYHHHHHHHHHHHHHHHQQQQQQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -- QHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 AAAAAAAAGSQAAALEGHPYGLPLAKRAAALAFSPLGLTTSPTTSSLLGESPSLPSPPNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMALV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---AAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 7; Length 643;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93.9%; Score 3133.5; DB 7; 92.4%; Pred. No. 2.1e-208; ive 10; Mismatches 22;
                                                                                      Milbrandt J;
                       BAYLOR COLLEGE MEDICINE UNIV WASHINGTON.
```

ö

New isolated polynucleotides and polypeptides associated with NF-kappaB pathway, useful for diagnosing, treating, or preventing disorders or diseases associated with NF-kappaB pathway.

SEQ ID NO 64; 237pp; English.

Claim 6;

Carman J;

Feder JN,

Neubauer MG,

SG,

Nadler

원

g ò g

ઠે

g

ઠ

a

ઠે 셤 g

ઠે 셤

ઠે

ò 셤

ઠે

WPI; 2004-562168/54

N-PSDB; ADR14062.

(BRIM ) BRISTOL-MYERS SQUIBB CO 14-JAN-2003; 2003US-0440068P. 12-MAY-2003; 2003US-0469757P.

```
WF-kappaB pathway; antiinflammatory; cytostatic; hepatotropic; virucide; antiarthritic; antirheumatic; gastrointestinal-Gen; antiasthmatic; antiarthribic; immunomodulator; cerebroprotective; vasotropic; immunosuppressive; vulnerary; gene therapy; immune disorder; immunosuppressive; vulnerary; gene therapy; immune disorder; immunosuppressive; vulnerary; gene therapy; immune disorder; hepatic disorder; NF-kappaB regulation; cancer; aberrant apoptosis; whepatic disorder; Hodgkin's lymphoma; haematopoietic tumour; hyporIgM syndrome; hypohidrotic ectodermal dysplasia; when the anhidrotic ectodermal dysplasia; immunodeficiency; viral infection; HIV-1; HTLV-1; hepatitis B; hepatitis C; EBV; influenza; viral infection; HIV-1; hepatitis B; hepatitis C; EBV; influenza; rheumatoid arthritis; inflammatory bowel disease; colitis; asthma; atherosclerosis; cachexia; euthyroid sick syndrome; stroke; EAE; autoimmune disorder; hyper immune activity; autoimmune disorder; hyper immune ectivity; mecrofic lesion; wound; organ transplant rejection; wound; organ transplant rejection; aberrant eighal transduction; proliferating disorder; cancer;
                                                                                                                                                                                                                                                                                                                                                           339
                                                          120
                                                                                                                  219
                                                                                                                                                                          180
                                                                                                                                                                                                                                     279
                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIISSLKDHQSKGQALEPT
                               HHHHHHHQQQQQQQDSIPPASSPEDEVLPSTSMYFKQSPPSTPTPAFPPQAGALWDEA
                                                                                                                                              ALSIPIGAAAAAGSQAAALESHPYGIPIAKRAAPIAFPPIGITPSPTASSILGESPSIPS
                                                                                                                                                                                                                                                                                                                                                        PPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKR
                                                                                                                                                                                                                                                                                                                                                                                                                241 PPSRSSSSSGCTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKR
                                                                                                               LPSAPGCIAPGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAA
                                                                                                                                                                                                                                                                       181 ALSLPLGAAAAAGSQAAALEGHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPT
HHHHHHHHQQQHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NALVRALTDSTPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ESKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ESKVLGALVELRKI CTLGLQRI FYLKLEDLVSPPSI I DKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human NF-kappaB pathway-associated protein SeqID64.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADR14063 standard; protein; 587 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                    61
                                                                                                               160
                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                        280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
```

```
This invention relates to the novel association of protein sequences (and the genes which encode them) to the NP-kappaB pathway. The invention may the genes which encode them) to the NP-kappaB pathway. The invention may cytostatic, hepatotropic, virucide, antiarteriosclerotic, antiarteriosclerotic, cytostatic, hepatotropic, interest antiarteriosclerotic, confine and confidence of mmunomodulator, cerebroprotective, vasotropic, immunosuppressive or undersory activity or for gene therapy. The proteins and nucleotides are useful for diagnosing, preventing, treating, or ameliorating conditions to related to aberrant NP-kappaB pathway. The condition is an immune disorder, an inflammatory disorder, an inflammatory disorder calced to aberrant NP-kappaB required, cancer, aberrant apportosis, confidence, hypothidrotic ectodermal dysplasia, X-linked anhidrotic ectodermal dysplasia, X-linked anhidrotic conformal dysplasia, immunodeficiency, viral infections, HIV-1, HTLV-1, evpatitis B, hepatitis C, EBV, influenca, viral infection, host cell survival, evasion of immune responses, rheumatoid arthritis, inflammatory bowel disease, colitis, asthma atherosclerosis, cachexia, euthyroid sick syndrome, stroke, EBE, autoimmune disorders related to aberrant acute phase responses, hypercongenital conditions, birth defects, necrotic lesions, wounds, crejection, disorders related to aberrant acute phase responses, hypercongenital conditions, birth defects, necrotic lesions, wounds, organ transplant rejection, conditions related to organ transplant crejection, cancers and HIV propagation in cells infected with other viruses. The present sequence is the NF-kappaB pathway of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICWM 3999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241 PPSRSSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKR 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 LPSAPGCIAPGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PPSRSSSSGGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MDLGSTEITATATTSLPSISTFVEGYSSNYELKPSCVYQWQRPLIKVEEGRAPSYHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100 HHHHHHHQQQHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220 ALSLPLGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40 MDLGSTEITATATTSLPSISTFVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LPSAPGCIAPGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALSLPLGAAAAAGSQAAALEGHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93.6%; Score 3123; DB 8; Length 587;
99.8%; Pred. No. 1e-207;
ive 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           586; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 587 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
```

13-JAN-2004; 2004WO-US000798.

HIV propagation;

WO2004065577-A2

sapiens

Ношо

g ð 셤

셤 ઠે g Š

Š

```
IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murine; NOR1; neuroleptic; Neural Orphan Receptor 1;
Translocated in Extraskeletal Chondrosarcoma; TEC; cell proliferation;
apoptosis; central nervous system; transgenic mouse;
pain response threshold; impaired balance; impaired motor coordination.
                                                                                                                                                                                                                                                                                                                                                                  CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT
                                                                                                                                                                                                                                                                                                                                                                               YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                      ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                 61 FWEGYPSSCELKPSCLYQMPPSGPRPLIKWEEGREHGYHHHHHHHHHHHHQO--QQPS
                                                           GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSV
                                                                                                                                                                                                 GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                             GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                            177 MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                         AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGGEGTCAVC
    ---ОКРГІКУБЕСКАРЅҮННИНИННННОООНООРЅ
                                                                                                                                                                                                                                                                                                                                                                                                               LGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                           Murine Neural Orphan Receptor 1, NOR1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABB98438 standard; protein; 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-DEC-2000; 2000US-0251794P.
24-SEP-2001; 2001US-0324614P.
04-DEC-2001; 2001US-00005169.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              05-DEC-2001; 2001WO-US047790
        FVEGYSSNYELKPSCVYQM-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Guenther C, Allen KD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (DELT-) DELTAGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200246391-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                             538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABB98438;
                                                                                                                                                                                                                                                                                                                                                  478
                                                                                                                                                                                                                                                                                                                                                                        536
                                                                                                                                                                                                                                                                                                                                                                                                                    296
                                                                                                                                                                                                                                                                                 416
                                                                                                                                                                                                                                                                                                                                                                                                                                        598
                                                                           119
                                                                                                                       179
                                                                                                                                              236
                                                                                                                                                                  238
                                                                                                                                                                                        296
                                                                                                                                                                                                               298
                                                                                                                                                                                                                                     356
                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                                                                            476
         19
                                                    117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
ABB98438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                      ò
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                ò
                                                                                                                 QQ
                                                                                                                                              ઠે
                                                                                                                                                              셤
                          g
                                                     Š
                                                                      g
                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This is the amino acid sequence of the novel rat nuclear receptor protein designated NUR88. The gene was isolated from 16 day old rat embryo cerebral neurons, induced into apoptosis, by amplifying the sequence from cDNA using primers AAT28371-4. Antisense nucleic acids and ribozymes targeted to the gene can be used as agents for treating cerebral nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                             Rat nuclear receptor gene; embryo; cerebral neuron; induction; apoptosis; amplification; primer; PCR; Antisense; ribozyme; nerve; disease.
                                        DLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKD 519
                                                                                         480
                                                                                                              579
RRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMM 36,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPT
                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nuclear receptor expressed in apoptosis of cerebral neuron - used to design anti-sense oligo:nucleotide(s) and ribozyme(s) for treatment cerebral nerve disease etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 628;
                                                                                                                                                           ESKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                           cerebral neuron nuclear receptor protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    / Match 92.1%; Score 3074; DB 2; Local Similarity 92.2%; Pred. No. 2.7e-204; Les 582; Conservative 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                   293. .628
/note= "DNA binding domain"
                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 7-10; 11pp; Japanese.
                                                                                                                                                                                                                                           Ā
                                                                                                                                                                                                                                           AAR92057 standard; protein; 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94JP-00164434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94JP-00164434
                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1996-133421/14.
N-PSDB; AAT16151.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORP.
                                                                                                                                                                                                                                                                                                                                                                    norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 628 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TERU ) TERUMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                      JP08023980-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-JAN-1996
                                                                                                                                                                                                                                                                                        19-JUL-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
     301
                           400
                                                361
                                                                      460
                                                                                             421
                                                                                                                   520
                                                                                                                                         481
                                                                                                                                                               580
                                                                                                                                                                                                                                                                  AAR92057
                                                                                                                                                                                                                                                                                                                                                                    Rattus
                                                                                                                                                                                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                      RESULT 12
```

ò 셤

475 477

415 417

235 237 295 297 355 357 595

597

(first entry)

```
New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal.
                                                                         in, neuronal tissue; gene therapy; spinal segmental nerve injury; constriction injury; CCI; spared nerve injury; SNI; Chung.
                                                  Protein P51179, SEQ ID NO 11665
                                                                                                                                                                                                               14-AUG-2001; 2001US-0312147P.
01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
                                                                                                                                                                                        14-AUG-2002; 2002WO-US025765
                                                                                                                                                                                                                                                                  GEN HOSPITAL CORP
                                                                                                                                                                                                                                                                                                                              WPI; 2003-268312/26
                                                                                                               Rattus norvegicus
                                                                                                                                                                                                                                                                             BAYER AG
                                                                                                                                       WO2003016475-A2
                                                                                                                                                                                                                                                                                                                                            GENBANK; P51179
                          29-JAN-2004
                                                                                                                                                                27-FEB-2003
                                                                           pain;
                                                                                                                                                                                                                                                                                                       ວັ
                                                                                        chronic
                                                                                                                                                                                                                                                                  (GEHO)
                                                                                                                                                                                                                                                                                                       Woolf
 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             535
                                                                                                                                                                                                                                                                                                                                                       116
                                                                                                                                                                                                                                                                                                                                                                   235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           538 CLSALSMITERHGLKEPKRVEELCNKIISSLKDHQRKGQALEPSEPKVLRALVELRKICT 597
                                    Novel targeting construct for producing transgenic mouse useful as disease model and for identifying modulators of gene expression, has sequences homologous to neural orphan receptor 1 and a selectable marker.
                                                                                                                                                                                                                                                                                                                                                                                                      117 IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVC 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV 355
                                                                                                                                                                                                                                                                                                                             9
                                                                                                           The present sequence is a protein sequence for murine Neural Orphan Receptor 1 (NOR1). NOR1, also known as Translocated in Extraskeletal Chondrosarcoma (TEC), is involved in the control of cell proliferation and apoptosis and is expressed mainly in the central nervous system. The NOR1 coding sequence was used to generate a targeting construct (I): (I) is useful for producing a transgenic mouse comprising a disruption in a NOR1 gene and exhibiting increased or enhanced pain response threshold, or impaired balance and impaired motor coordination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GWVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMALVRALTDATPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                    1 MPCVQAQYSPSPPGSTYATQTYGSEYTTEIMNPDYAKLTMDLGSTGIMATATTSLPSFST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT
                                                                                                                                                                                                                                                                                                                                                       FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHQQQQQQS
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAGSQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                      1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                             .
6
                                                                                                                                                                                                                                                    Length 628;
                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                             29;
                                                                                                                                                                                                                                                    92.1%; Score 3074; DB 5; 92.2%; Pred. No. 2.7e-204; ive 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1; Fig 2; 56pp; English
                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 92.23
Matches 582, Conservative
2002-608255/65
                                                                                                                                                                                                                            Sequence 628 AA;
                                                disease model
                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                969
                                                                                                                                                                                                                                                                                                                                                                                                                                                        177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             476
                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          356
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

Costigan M;

Befort K,

D'urso D,

```
comprising the vector comprising the novel polymucleotide, a host cell comprising the vector. A method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polymucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polymucleotide sequence which is differentially compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the compound for identifying a compound or small molecule that regulates the contivity in an animal of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating compound that regulates the activity is unanimal of one or more of the polypeptides given in the specification, a method for identifying a compound that regulates its activity is useful for preparing a medicament for treating colypeptides or their antibodies. The polypucleotide or the compound that modulates its activity is useful for preparing a medicament for treating colypeptides or their antibodies. The polyperic deforming the printed contingual or companies or the capacitication which is differentially expressed during passed contingual or the specification, but was obtained in electronic form directly from WIPO at the was obtained in electronic form directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPS 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                         The invention discloses a composition comprising two or more isolated or human polynucleotides or a polynucleotide which represents a fragme derivative or allelic variation of the nucleic acid sequence. Also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 628;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 3074; DB 7;
Pred. No. 2.7e-204;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92.1%; Scc. No. 2...
92.2%; Pred. No. 2...
12; Mismatches
Claim 1; Page; 1017pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 582; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 628 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
```

Ş

ADD45993 standard; protein; 628

RESULT 14 ADD45993 ID ADD4 XX

요 8 g ò

ઠે

```
415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Inhibiting proliferation of a hematopoietic cell, useful for treating or preventing leukemia, comprises modulating the level or activity of nor-1 and/or nur77 nuclear receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         477
                                                                                                    MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA 235
                                                                                                                                                                                                                     237
                                                                                                                                                                                                                                                                     295
                                                                                                                                                                                                                                                                                                                  297
                                                                                                                                                                                                                                                                                                                                                                                                               357
                                                                        IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                                                                                                                                                                                                                             GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALIDSTPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPSRSSSSGEGTCAVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nuclear receptor; receptor; leukaemia; haematopoietic cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nor-1 nuclear receptor polypeptide JC2493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LGLORIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٦,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conneely OM, Milbrandt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BAYU ) BAYLOR COLLEGE MEDICINE (UNIW ) UNIV WASHINGTON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADF28880 standard; protein; 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2003WO-US011804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-APR-2002; 2002US-0373238P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-854017/79.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2003088812-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-APR-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nor-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mullican
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADF28880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                476
                                                                                                                                                                               177
                                                                                                                                                                                                                                                                               236
                                                                                                                                                                                                                                                                                                                                                                         296
                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rat 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADF28880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PART X X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X X B X B X X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B X B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
The present sequence is that of rat nor-1 nuclear receptor polypeptide C JC2493. Nor-1 has been identified as a molecular target for therapeutic intervention in the treatment of myeloid leukasemia. The invention provides methods of inhibiting the proliferation of a haematopoietic stem cell or a haematopoietic myeloid cell by modulating the level of a nor-1 and/or nur7 nuclear receptor. This involves increasing the level of the receptor polypeptide or polynucleotide. A claimed method of treating corporations modulating a nor-1 and/or nur77 nuclear receptor in a leukaemia comprises modulating a nor-1 and/or nur77 nuclear receptor in a cleanifying an upregulator of expression of nor-1 and/or nur77, of identifying a compound for the treatment of leukaemia, and of screening identifying a compound for the treatment of leukaemia, and of screening leukaemia comprising a mouse having defective nor-1 and nur77 nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLSALSMITERHGLKEPKRVEELCNKIISSLKDHQSKGQALEPTESKVLGALVELRKICT 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   597
                                                                                                                                                                                                                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                297
                                                                                                                                                                                                                                                                                                                                                         116
                                                                                                                                                                                                                                                                                                                                                                                 118
                                                                                                                                                                                                                                                                                                                                                                                                        176
                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AALESHPYGLPLAKRAAPLA PPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       XSRYCPTDQAAAGTDAEHVQOPYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BLFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                        117 IPPASSPEDEVLPSTSMYFKQSPPSTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                         MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                                                                                                                                                    FVEGYSSNYELKPSCVYOM----ORPLIKVEEGRAPSYHHHHHHHHHHHQQQHQQPS
                                                                                                                                                                                                                                                                                                                                                                      1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                8;
                                                                                                                                                                                                                                                       Length 628;
                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                       92.1%; Score 3074; DB 7;
llarity 92.2%; Pred. No. 2.7e-204;
Conservative 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LGLORIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure, SEQ ID NO 15; 101pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Search completed: March 12, 2005, 17:48:10 Job time : 173 secs
                                                                                                                                                                                                                                                                         Local Similarity
nes 582; Conserv
                                                                                                                                                                                                                                     Sequence 628 AA;
                                                                                                                                                                                                                sednences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  476
                                                                                                                                                                                                                                                                                                                                                                                                                                        119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  356
                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                            Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
g
                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                ò
```

```
61 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      132 FVEGYSSNYELKPSCVYQQQRPLIKVEEGRAPSYHHHHHHHHHHHHHHQQQQQSIPPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              192 SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       252 PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PTVAGARFPLFHFKPSPPHPPAPSPAGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 626; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-9660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 10, Appli
Sequence 10, Appl
Sequence 2, Appli
Sequence 9851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 9660, Ap
Sequence 6699, Ap
Sequence 6699, Ap
Sequence 10318, A
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Appli
Sequence 7, Appli
Sequence 7, Appli
Sequence 7, Appli
Sequence 11572, A
Patent No. 5171671
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 6, Appli
Sequence 6, Appli
                                                                                (without alignments)
1112.627 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                               US-10-608-863-2
3337
1 MPCVQAQYSPSPPGSSYAAQ......BDLVSPPSIIDKLFLDTLPF
                                                                    March 12, 2005, 17:42:07; Search time 42 Seconds
                                                                                                                                                                                                                                                                                                                                 sued Patents AA:*
/cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/RB_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PcTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PcTUS_COMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-949-016-6776
US-09-949-016-6699
US-09-949-016-10338
US-09-277-078-2
US-09-277-078-2
US-09-949-016-1178
US-09-949-016-1178-4
PCT-US92-02320A-4
US-08-764-870-7
US-08-980-115-7
US-08-980-115-7
US-08-980-115-7
US-08-116-592A-4
US-08-116-592A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-07-952-800-4
US-08-216-592A-2
US-08-592-383-4
US-09-949-016-11665
US-08-336-408B-2
US-08-764-870-6
                                                                                                                                                                                                                        hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-336-408B-2
US-08-764-870-6
US-08-980-115-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-329-668-10
PCT-US91-00399-2
                                                                                                                                                                                                   513545 segs, 74649064 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                             - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5171671-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5171671-2
                                                                                                                                                              BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                 seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Issued
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oţ
                                                                                                                               score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                          Total number
                                             protein
                                                                                                                                                                                                                                                 Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                    Database :
                                                                                                                                          Sequence:
                                                                                                                                                                                                   Searched:
                                                                     Run on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š.
                                             ₹
```

ö

ö

IndelB

240

CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE

301

ò

JS-09-949-016-9851

```
US-09-049-016-9660
; Sequence 9660, Application US/09949016
; Sequence 9660, Application US/09949016
; Patent No. 6812339
; BARBAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
; FILE REFERENCE: CL0001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-10-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR APPLICATION NUMBER: 60/241,768
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
Sequence 8941, Ap Sequence 6942, Ap Sequence 6009, Ap Patent No. 5223606 Sequence 8939, Ap Sequence 8940, Ap Sequence 6, Appli Sequence 6, Appli Sequence 6, Appli Sequence 5, Appli Sequence 10, 2260432
                                                                                                                                                                               Sequence 4,
Sequence 8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 697;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 3337; DB 4;
100.0%; Pred. No. 6.7e-249;
ive 0; Mismatches 0;
US-09-949-016-8941
US-09-949-016-6009
5223606-2
5223606-2
US-09-949-016-8940
US-09-949-016-8940
US-09-949-016-8940
US-08-336-408B-6
PCT-US91-00399-6
PCT-US91-00399-6
US-08-216-592A-6
PCT-US91-00399-4
US-08-764-870-5
US-08-764-870-5
US-08-764-870-5
US-08-980-115-5
526432-2
526432-2
US-09-691-220-4
US-09-691-220-4
                                                                                                                                                                                                                           ALIGNMENTS
  TYPE: PRT
ORGANISM: Human
```

qq ò g ò 유 ò g ò 셤

ò

```
Sequence 6699, Application.US/09949016

Sequence 6699, Application.US/09949016

Batent No. 681239

GENERAL INFORMATION:

TITLE OF INVENTION: DOLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISRASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR PELING DATE: 2000-10-20

PRIOR PELING DATE: 2000-10-03

PRIOR PELING DATE: 2000-10-03

PRIOR PELING DATE: 2000-10-03

PRIOR FILING DATE: 2000-0-10-03

PRIOR FILING DATE: 2000-0-10-03

SPRIOR PARTICAL TOWN DATE: 2000-0-10-03

SPRIOR FILING DATE: 2000-0-10-0-10-03

SPRIOR FILING DATE: 2000-0-10-0-10-0-10-0-10-0-10-0-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SISTEVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHQQQH 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  113 QQPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------PGS 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --PSPAG 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   208 GHHLGYDPTAAALSLPLGAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPT 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                          480
                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MPCVQAQYSPSPPGSSYAAQTY----SSEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                                                                                                                                                                                     RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                            PIDGARAGTDAEHVOOFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                              CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                    VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                          SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 108; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59 SPSTFMDNYSTGYDVKPPCLXQMPLSGQQSSIKVEDIQMHNYQQHSH-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLDPPMKAVPT-----VAGARFPLFHFKPSPPHPPA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 52.5%; Score 1751; DB 4;
54.5%; Pred. No. 1.1e-126;
cive 74; Mismatches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                              601 IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 363; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          , ORGANISM: Human
US-09-949-016-6699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SHHV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             172
        301
                                                                                          361
                                                                                                                                    361
                                                                                                                                                                          421
                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                    d
                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                         g
                                                                                                                                                                        ò
                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                     셤
                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: UNEXPERATION:
APPLICANT: UNEXPER, J. Craig et al.
APPLICANT: UNEXPER,
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
TITLE REPERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT PILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: PASESEG for Windows Version 4.0
LENGTH: 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                         420
                                                                                                                                                             PIDGAAAGTDAEHVQQFYNLLIASIDVSRSWAEKIPGFIDLPKEDQTLLIESAFLELFVL 480
                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                       611
                                                                                                                                                                                                                                                                                                                              SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR 600
                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                        VVRIDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALIDSTPRDLDYSRYC 491
      SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTVAGARPPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                   VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                            RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match

99.4%; Score 3316; DB 4; Length 626;

Best Local Similarity 99.4%; Pred. No. 2.4e-247;

Matches 622; Conservative 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                   601 IFYLKLEDLVSPRIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 6776, Application US/09949016
Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -09-949-016-6776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-6776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                           361
                                                                                                                       432
                                                                                                                                                                 421
                                                                                                                                                                                                       492
                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                           552
                                                                                                                                                                                                                                                                                                                                                                           612
                                     372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
```

ò

Tue

```
Sequence 10263, Application US/09949016

patent No. 6812339

GENERAL INFORMATION:
PAPELICANT: VENTER, J Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT FILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/231,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
NUMBER OF SEQ ID NOS: 207012
SEQ ID NOS: 207012
SEQ ID NO 10263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23,
                                                                                              326
                                                                                                                                                                                                                                                                                                                                                                                                                                                     611
                              GHHLGYDPTAAAALSLPLGAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPT 266
                                                                                                                                                            VCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEP 386
                                                                                                                                                                             317 VCLANKNCPVDKRRRNRCQYCRFQXCLAVGMVKEVVRTDSLKGRRGRLPSKPKS-----P 371
                                                                                                                                                                                                                          387 SOPSPPSPPICMMALVRALIDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQOFYNLLTA 443
                                                                                                                                                                                                                                           503
                                                                                                                                                                                                                                                                                                           563
                                                                                                                                                                                                                                                                                                                                                                         564 SSLKDHQ--SKGQALEPTE-SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLF 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LHNFHQNYVATTHMIEQRKTPVSRLSLFSFKQSPPGTPVSSCQMRFDGPLHVPMNPEPAG 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58 ISTFVEGYSSNYELKPSCVYQMQ---RPLIKVEEGRAPSYHHHHHHHHHHHHHHQQHQQ 114
                                                  44 MPCIQAQYGTPAPSPGPRDHLA-----SDPLTPEFIKPTMDLASPEAAPAAPALALPS
                                                                                            ASSLIGESPSIPSPSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                                                                                                                                          SIDVSRSWAEKI PGFTDLPKEDQTLLI ESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHR
                                                                                                                                                                                                                                                                                                                                                        LQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MPCVQAQY---SPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match
41.0%; Score 1367; DB 4; Length 641;
Best Local Similarity 47.5%; Pred. No. 4.7e-97;
Matches 317; Conservative 74; Mismatches 165; Indels 112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            115 PSIP-PASSPEDEVLPSTSMYFKQSPPS--TPTTPAF-PPQAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   612 LDTLPF
                                                          SHHV--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-09-949-016-10263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-949-016-10263
                                                                                                                            259
                                                                                                                                                                                                                                                                                                                                                                                        492
                                                                                                                                                                                                                                                                                                                                                                                                                                                        552
                                                                                              267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        621
                                                              228
                                                                                                                                                            327
                                                                                                                                                                                                                                                                                                                                                        504
                                                                                                                                                                                                                                                                                          444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM:
                                                                                                                       g
                                                                                                                                                                                   g
                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                            ઠે
                                                       셤
                                                                                     ઠે
                                                                                                                                                            ઠે
                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10338, Application US/09949016

patent No. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;
FILE REFERENCE: CLOOL307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT PILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-09-08

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FREEESC for Windows Version 4.0

SEQ ID NO 10338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18;
                                                                           VCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEP 386
                                                                                                             352
                                                                                                                                           443
                                                                                                                                                                                                           503
                                                                                                                                                                                                                            ------pgs 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            207
                                               297
                                                                                                                                                          LOCIRGEGEWIDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIT 563
                                                                                                                                                                                                                                                                                                                                                                         592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57 SISTFVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHQQQH 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             113 QQPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ---PSPAG 2
                                                                                                                                         387 SQPSPPSPPICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTA
                                                                                                                                                                                                        SIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHR
                                                                                                                                                                                                                                                                                                                                                       533 NCLKDHVTFNNGGLNRPNYLSKLLGKLPELRTLCTQGLQRIFYLKLEDLVPPPAIIDKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MPCVQAQYSPSPPGSSYAAQTY----SSEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 MPCVQAQYGSSPQGASPASQSYSYHSSGEYSSDFLTPEFVKFSMDLTNTEI--TATTSLP
                                                                                                                                                                                                                                                                                                                                        SSLKDHQ--SKGQALEPTE-SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLF
                               ASSLIGESPSLPSPPSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LLDPPMKAVPT-----VAGARFPLFHFKPSPHPPA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 52.5%; Score 1751; DB 4;
Best Local Similarity 54.5%; Pred. No. 1.1e-126;
Matches 363; Conservative 74; Mismatches 121;
                                                                                                                                                                                                                                                                                                                                                                                                      LDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                    593 LOTLPF 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 4
US-09-949-016-10338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Human
US-09-949-016-10338
                                             240
                                                                           327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           172
                                                                                                                                                                                                         444
                                                                                                                                                                                                                                                                         504
                                                                                                                                                                                                                                                                                                                                        564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           125
                                                                                                                                                                                                                                                                                                                                                                                                      621
                                                                                                        윉
                                                                                                                                                                 셤
                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                          δ
                                                                                                                                         ઠે
                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
               ઠે
                                          셤
                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

us-10-608-863-2.rai

QY   113   QQPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP   171	Cy 327 VCL 329	APPLICANT: OZATO, KEIKO TITLE OF INVENTION: A NEW MEMBER OF THE NUCLEAR HORMONE TITLE OF INVENTION: RECEPTOR SUPERFAMILY AND A CDNA CLONE THEREOF NUMBER OF SEQUENCES: 4 CORRESPONDENCE ADDRESS: ADDRESSES: TOWNSEND AND TOWNSEND STREET: 1 WARKET FLAZA, STEUART TOWER, SUITE 2000 CITY: SAN FRANCISCO	STATE: CA COUNTY: USA ZIP: 94105 ZIP: 94105 COMPUTER READABLE FORM: COMPUTER: ISP Compatible COMPUTER: ISP COMPATION SYSTEM: PC-DOS/MS-DOS COMPUTER: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/07/952,800	FILING DATE: 19920928  CLASSIFICATION: 435  ATTORNEY/AGENT INFORMATION: NAME: Weber. Kenneth A  REGISTRATION NUMBER: 31,677  REFERENCE/DOCKET NUMBER: 15280-21-1  TELEPHONE: 415-54-5600  TELEPHONE: 415-54-5600  TELEPHONE: 415-54-5601  SEQUENCE CHARACTERISTICS: LENGTH: 533 amino acids  TYPE: AMINO ACID  TYPE: AMINO ACID  WOLECULE TYPE: protein  US-07-952-800-2	Ouery Match Best Local Similarity 29.7%; Pred. No. 6.8e-33; Bast Local Similarity 29.7%; Pred. No. 6.8e-33; Matches 151; Conservative 70; Mismatches 189; Indels 99; Gaps 17;  Qy 118 PPASSPEDEVLPSTSMYFKQSPRSTPTTPAPPDQAGALWDEALPSAPGCIAPGPLLDPPM 177  Db 83 PDSSSPNPLPQGVPPPSPPGPPLPPRSTAPSLGGSGAPPPPM 124  Qy 178 KAVPTVAGARFPLFHFKSPPHPAPPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAA 237  Db 125 PPPPLGSPFVISSSMGSPGLPPPAPPGFSGPVSSPQINSTVSLPGGGSG 174
			619 634 SULT 6 -09-277-078 Sequence 2,	GENERAL INFORMATION: APPLICANT: Sakurada, Kazuhiro APPLICANT: Sakurada, Kazuhiro APPLICANT: Palmar, Theo APPLICANT: Bakurada, Kazuhiro APPLICANT: Gage, Fred H. TITLE OF INVENTION: EXPURATION OF TYROSINE HYDROXYLASE TITLE OF INVENTION: EXPURSION TITLE OF INVENTION: EXPOSION FILE REFERENCE: 07251/031001 CURRENT FILING DATE: 1999-03-26 CURRENT FILING DATE: 1999-03-26 NUMBER OF SEQ ID NOS: 60 SOFTWARE: FastSEQ for Windows Version 4.0 SOFTWARE: 100 SOFTWARE: 100 TYPE: PRT TYPE: PRT TYPE: PRT	) 2224

```
SKPKSPLQQEPSQPSPPSPPICMMNALVR-ALTDSTPRDLDYSRYCP--TDQAAAGTDAE
                                                                                                                                                                                                                                                                                                                                 610 VSPPSIIDKLF----LDTL 624
                                                                                                                                                                                                                                                                                                                                                                   409 GŚMPPLIQEMLENSEGLDTL 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08/099,242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application US/08592383
Patent No. 5830760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/099,24
FILING DATE: July 28, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Broderick, Thomas F.
REGISTRATION NUMBER: 31,332
REFERENCE/POCKET NUMBER: FICK
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : 462 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: Christens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 98101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE: W
                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-592-383-2
                                                                                                433
                                                                                                                                     229
                                                                                                                                                                           493
                                                                                                                                                                                                              289
                                                                                                                                                                                                                                                      551
                      ઠે
                                                  g
                                                                                            ò
                                                                                                                               g
                                                                                                                                                                         ò
                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT APPLICATION NUMBER: 00/0-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,756
PRIOR APPLICATION NUMBER: 60/231,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
                                                                                                                                                         406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 211 RSSGKHYGVYSCEGCKGFFKRTIRKDLTYSCRDNKDCTVDKRQRNRCQYCRYQKCLATGM 270
                                                                                                                                                                             :| |: :: | |: :21 KREAVQEERQRG-----KDKDG-DGEGAGGAPEEMPVDRILEAELAVEGKSDQGVEGP 322
                                                                                                                                                                                                                                                          323 GGTGGSGSSPND-----PVTNICQAAD----KQLFTLV------EWAKRIPHFSSL 363
                                                                                                                                                                                                                                                                                                            PKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQC-LRGFGEWLDSI-KD 519
                                                                                                                                                                                                                                                                                                                                     | :|| :|: : :| | : : | | : : : | 364 PLDDQVILLRAGWNELLIASFSHRSIDVRDGILLATGLHVHRNSAHSAGVGAIFDRVLTE 423
                                                                                                                                                                                                                                                                                                                                                                                         FSLNLQSLNLDIQALACLSALSMIT-ERHGLKEPKRVEELCNKITSSLKDH-QSKGQALE 577
                                                                                                                                                                                                                                                                                                                                                                                                               203 PSPAGGHHLGYDPTAAAALSLP--LGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLG 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60 -TPSPATIETQSSSSEEIVPSPPSPPPLPRI--YKPCFVCQDKSSGYHYGVSACEGCKGF 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLP 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         59
LESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGD
                                                                            298 NAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGM
                                                                                                                                                       VKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMALVRAL------
                                                                                                                                                                                                                                  407 ----TDSTPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14 PTPGGGHLNGY-PVPPYAFFFPPMLGGLSPPG----ALTTLQHQLPVSGYS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              261 LTPSP----TASSLLGE-SPSLPSPSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4; Length 448;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 15.9%; Score 530.5; DB 4; Best Local Similarity 34.5%; Pred. No. 9.3e-33; Matches 152; Conservative 64; Mismatches 181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            578 PTESKVLGALVELRKICTLGLQRIFYLKL 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 8178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCATION: (1)...(448)
CTHER INFORMATION: Xaa = Any Amino Acid
US-09-949-016-8178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 8178, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
US-09-949-016-8178
                                                                                                                                                       358
                                                                                                                                                                                                                                                                                                            462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
                                    셤
                                                                        ò
                                                                                                           g
                                                                                                                                                   ઠે
                                                                                                                                                                                   g
                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
APPLICANT: TBai, S. and S.J. Collins
TITLE OF INVENTION: "Hematopoietic Cell Lines Bearing Altered Retinoic Acid Recep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14;
                                                                                                                                                                                                                                                        348
170 -KKKEVPKPECSESYTLTPEVGELIEKVRKAHQETFPALCQLGKYTTNNSSEQRVSLDID 228
                                                                         HVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDK 492
                                                                                                                                                                                                  FVFCNGLVLHRLQCLR-GFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMIT-ERHGLK 550
                                                                                                                                                                                                                                                                                                                                                          349 QPDRVDMLQEPLLEALKVYVRKRRPSRPHMFPKMLMKITDLRSISAKGAERVITLKMBIP 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          203 PSPAGGHHLGYDPTAAAALSLP--LGAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLG 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   54
                                                                                                                                                                                                                                     BPKRVEELCNKITSSLKDHOSKGOALEP-TESKVLGALVELRKICTLGLORIFYLKLEDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PTPGGGHLNGY-PVPPYAFFFPPMLGGLSPPG----ALTTLGHQLPVSGYS---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
15.9%; Score 530.5; DB 2; Length 462;
Best Local Similarity 34.5%; Pred. No. 9.6e-33;
Matches 152; Conservative 64; Mismatches 181; Indels 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Christensen, O'Connor, Johnson and Kindness
STREET: 2800 Pacific First Centre, 1420 Fifth Avenue
CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: 1-206-682-8100; 1-206-224-0709 (direct) INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette-5.25 inch, 1.2Mb storage
COMPUTER: PF F/386 Compatible
OPERATING SYSTEM: MS-DOS 4.01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LECULE TYPE: polypeptide
DESCRIPTION: sequence encoded by SEQ. ID. NO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FHCR-1-7190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Word for Windows 5.01-t
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/592,383
```

us-10-608-863-2.rai

```
PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:

ZIP: 10112
COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
Floppy Alsk
Floppy A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404 GSMPPLIQEMLENSEGLDTL 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              610 VSPPSIIDKLF----LDTL
                                                                                              Best Local Similarity 34.5
Matches 152; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: NEW YORK
STATE: NEW YORK
COUNTRY: U.S.A.
                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: NE COUNTRY:
US-08-095-728B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 551 EPKRVEELCNKITSSLKDHQSKGQALEP-TESKVLGALVELRKICTLGLQRIFYLKLEDL 609
                                                                                                                                                                                                                                                                                                                                                                                   433 HVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDK 492
                                                                                                                                                                                                                                                                                                                                                                                                                       224 IMDKFSELSTKCIIKTVEFAKQLPGFTTLTIADQITLLKAACLDILILRICTRYTFEQDT 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        493 FVFCNGLVLHRLQCLR-GFGEWLDSIXDFSLNLQSLNLDIQALACLSALSMIT-ERHGLK 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIPSP----TASSLIGE-SPSLPSPPSRSSSGEGTCAVCGDNAACQHYGVRICEGCKGF 315
                                                                                                                                  FKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLP 375
                                                                                                                                                                      376 SKPKSPLQQEPSQPSPPSPPICMMNALVR-ALTDSTPRDLDYSRYCP--TDQAAAGTDAE 432
                                                                                                                                                                                                                                                                                                                  165 -KKKEVPKPECSESYTLTPEVGELIEKVRKAHOETFPALCQLGKYTTNNSSEQRVSLDID 223
                                             Sequence 4, Application US/08095728B

Sequence 4, Application US/08095728B

Pacent No. 5843642

GENERAL INFORMATION:
APPLICANT: DMITROVSKY, ETHAN
APPLICANT: WILLER JR, WILSON H
APPLICANT: FRANKEL, STANLEY
TITLE OF INVENTION: METHODS FOR THE DETECTION AND
TITLE OF INVENTION: TREATMENT OF ACUTE PROMYELOCYTIC LEUKEMIA (APL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS SUNHAM LLP
ADDRESSEE: COOPER & DUNHAM LLP
STREET: 1185 AVENUE OF THE AMERICAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 22-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: WHITE, JOHN P
REGISTRATION NUMBER: 28,678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/095,728B
FILING DATE: 21-UUL-1993
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 38694-A
TELECOMMUNICATION INFORMATION:
TELEPHONE: (1212) 278-0400
TELEFAX: (212) 391-0525
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 404 GSMPPLIQEMLENSEGLDTL 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      610 VSPPSIIDKLF----LDTL 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 462 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: NEW YORK STATE: NEW YORK COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-08-095-728B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                  316
                                                                                                                                                                                                             112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                   쉱
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                     ð
```

```
14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         551 BPKRVBELCNKITSSLKDHQSKGQALEP-TESKVLGALVELRKICTLGLQRIFYLKLEDL 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316 FKRTVOKNAKYVCLANKNCPVDKRRRNRCQYCRFOKCLSVGMVKEVVRTDSLKGRRGRLP 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                        433 HVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDK 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     324 LWDKFSELSTKCIIKTVEFAKQLPGFTTLTIADQITLLKAACLDILILRICTRYTPEQDT 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               284 MTFSDGLTLNRTQMHNAGFGPLTDLVFAFANQLLPLEMDDAETGLLSAICLICGDRQDLE 343
                                                                                    203 PSPAGGHHLGYDPTAAAALSLP--LGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLG 260
                                                                                                                                                                                                                              111
                                                                                                                                                                                                                                                                                                                                                                 376 SKPKSPLQQEPSQPSPPSPPICMMNALVR-ALTDSTPRDLDYSRYCP--TDQAAAGTDAE 432
                                                                                                                                                                                                                                                                                                                                                                                                 493 FVFCNGLVLHRLQCLR-GFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMIT-ERHGLK
                                                                                                                                                                                                             261 LIPSP----TASSLLGE-SPSLPSPSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Sloan-Kettering Institute, For Cancer Research
TITLE OF INVENTION: METHODS FOR DETECTION AND TREATMENT OF CANCER
INTLE OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSES: COOPER & DUNHAM
STREET: 30 ROCKEFELLER PLAZA
                                                                                                                    PIPGGGHLNGY-PVPPYAPPPPMLGGLSPPG----ALTTLQHQLPVSGYS---
                                              43;
Length 462;
                                              Indels
                                              64; Mismatches 181;
  DB 2;
15.9%; Score 530.5; DB 2 34.5%; Pred. No. 9.6e-33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRICEATION DATA:
PRICATION INTREE: US 675,084
APPLICATION NUMBER: US 675,084
FILING DATE: 22-MAR-1991
PRICATION NUMBER: US 673,838
FILING DATE: 22-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: WHITE, JOHN P
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 38694-PCT
TELECOMMUNICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.24
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US92/02320A
```

```
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
US-08-980-115-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                       14;
                                                                                                                                                                                                                                                                                                                                                                                                    284 MTFSDGLTLNRTQMHNAGFGPLTDLVFAFANQLLPLEMDDAETGLLSAICLICGDRQDLE 343
                                                                                                                                                                                                                                                   203 PSPAGGHHLGYDPTAAALSLP--LGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLG 260
                                                                                                                                                                                                                                                                                                                 261 LTPSP----TASSLIGE-SPSLPSPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGF 315
                                                                                                                                                                                                                                                                                                                                                                                 FKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLP 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SKPKSPLQQEPSQPSPPSPPICMMNALVR-ALTDSTPRDLDYSRYCP--TDQAAAGTDAE 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                165 -KKKEVPKPECSESYTLTPEVGELIEKVRKAHQETFPALCQLGKYTTNNSSEQRVSLDID 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDK 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    224 IMDKFSELSTKCIIKTVEPAKQLPGFTTLTIADQITLLKAACLDILILRICTRYTPEQDT 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FVFCNGLVLHRLQCLR-GFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMIT-ERHGLK 550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EPKRVEELCNKITSSLKDHQSKGQALEP-TESKVLGALVELRKICTLGLQRIFYLKLEDL 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                54
                                                                                                                                                                                                                                                                       9 PTPGGGHLNGY-PVPPYAFFFPPMLGGLSPPG----ALTTLQHQLPVSGYS-----
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                       43;
                                                                                                                                                                                       Length 462;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INCORMATION:

GENERAL INCORMATION:

APPLICANT: Scanlan, Thomas S
APPLICANT: Baxter, John D
APPLICANT: Pletreitck, Robert J
APPLICANT: Wagner, Richard L
APPLICANT: Wagner, Richard L
APPLICANT: Apriletti, James W
APPLICANT: Apriletti, James W
APPLICANT: Brian
TITLE OF INVENTION: Brian Domains
TITLE OF INVENTION: Binding Domains
MUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: Cooley Godward
                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Cooley Godward
STREET: Five Palo Alto Square, 3000 El Camino Real
CIIY: Palo Alto
                                                                                                                                                                                   15.9%; Score 530.5; DB 5; 34.5%; Pred. No. 9.6e-33; tive 64; Mismatches 181;
, LELEFAX: (212) 644-0525
; TELEX: (212) 644-0525
; INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
TYDE:
TYDE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            404 GSMPPLIQEMLENSEGLDTL 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             610 VSPPSIIDKLF----LDTL 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 7, Application US/08764870 Patent No. 6236946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 94306
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
                                                                                                                                                                                                                   Matches 152; Conservative
                                                                                                                    ; TOPOLOGY: linear; MOLECULE TYPE: protein PCT-US92-02320A-4
                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: C. COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
US-08-764-870-7
                                                                                                                                                                                                                                                                                                                                                                                   316
                                                                                                                                                                                                                                                                                                                                                                                                                                                 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               551
                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      118 PPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPM 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              203 RSSGKHYGVYSCEGCKGFFKRIRKDLTYSCRDNKDCTVDKRQRNRCQYCRYQKCLATGM 262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----STPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIP 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          178 KAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263 KREAVQEERQRGKDKDGDGECAGGAPEE-------MPVDRILEAELAVEQKSDQ 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              310 GVEGPGGTGGSGSSPND-----PVTNICQAAD----KQLFTLV-----EWAKRIP 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    516 SI-KDFSLNLQSLNLDIQALACLSALSMIT-ERHGLKEPKRVEELCNKITSSLKDH-QSK 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      457 GFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQC-LRGFGEWLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75 PDSSSPNP--LP-----QGVPPSPPGPPLPPSTA-----PTLGGSGAPP---PPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            117 P--PPPLGSPFPVISSSMGSPGLPPPAPPGFSGPVSSPQINSTVSLPGGGSG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              298 NAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSVGM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VKEVVRTDSLKGR-----RGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 525;
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/764,870
FILNG DATE: 13-DEC.1996
CLASSIFICATION NUMBER: US 60/008,540
FILNG APPLICATION NUMBER: US 60/008,540
FILING DATE: 13-DEC-1995
PRIOR APPLICATION NUMBER: US 60/008,543
FILING DATE: 13-DEC-1995
PRIOR APPLICATION NUMBER: US 60/008,606
FILING APPLICATION NUMBER: US 60/008,606
FILING APPLICATION NUMBER: US 60/008,606
FILING APPLICATION NUMBER: US 60/008,606
FILING APPLICATION NUMBER: US 60/008,606
FILING APPLICATION NUMBER: US 60/008,606
FILING DATE: 14-DEC-1995
ATTONING APPLICATION NUMBER: US 60/008,606
FILING DATE: US 60/008,606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 15.9%; Score 530.5; DB 3; Best Local Similarity 29.2%; Pred. No. 1.1e-32; Matches 150; Conservative 68; Mismatches 187;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 573 GQALEPTESKVLGALVELRKICTLGLQRIFYLKL 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : :|:| | || | ||::|: || 471 YPEQQGRFAKLLIRLPALRSIGLKCLEHLFFFKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Nakamura, Jackie N
REGISTRATION NUMBER: 35,966
REFERENCE/DOCKET NUMBER: UCAL-246/01US
TELECOMMUNICATION INFORMATION:
TELEPHOME: (650) 843-5000
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      : 525 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   358
```

17;

```
CITY: Washington STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                            ; Patent No. 6635429
                                                                                                                                                                                                                                                                                                                                                                      20002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
US-08-216-592A-4
                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17;
                                                                                                                   APPLICANT: Magner, Peter J.
APPLICANT: Kushner, Peter J.
APPLICANT: Magner, Peter J.
APPLICANT: Apriletti, James W.
APPLICANT: Apriletti, James W.
APPLICANT: Shian L.
BARLIER APPLICATION NUMBER: 08/764,870
EARLIER FILING DATE: 1995-12-13
EARLIER FILING DATE: 1995-12-13
EARLIER FILING DATE: 1995-12-13
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 7.
SEQ ID NO 7.
SEQ ID NO 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  : ::::| | | | | :: | | | | 411 RVLTELVSKMRDMRMDKTELGCLRAIILFNPDAKGLSNPSEVEVLREKVYASLETYCKQK 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75 PDSSSPNP--LP-----QGVPPPSPPGPPLPPSTA------PTLGGSGAPPP---PPM 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   178 KAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    298 NAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGM 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            358 VKEVVRTDSLKGR-----RGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTD- 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              263 KREAVQEERQRGKDKDKDGDGECAGGAPEE--------MPVDRILEAELAVEQKSDQ 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      310 GVEGPGGTGGSGSPND----PVTNICQAAD----KQLFTLV-----EWAKRIF 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQC-LRGFGEWLD 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  516 SI-KDFSLNLQSLNLDIQALACLSALSMIT-ERHGLKEPKRVEELCNKITSSLKDH-QSK 572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGEGTCAVCGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---STPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            118 PPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      117 P.--PPPLGSPFPVISSSMGSPGLPPPAPPGFSGPVSSPQINSTVSLPGGGSG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 525;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
15.9%; Score 530.5; DB 3;
Best Local Similarity 29.2%; Pred. No. 1.1e-32;
Matches 150; Conservative 68; Mismatches 187;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; LOCATION: (292)..(523)
; OTHER INFORMATION: minimal ligand binding domain US-08-980-115-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           573 GQALEPTESKVLGALVELRKICTLGLQRIFYLKL 606
Application US/08980115
                                                    APPLICANT: Scanlan, Thomas S.
APPLICANT: Baxter, John D.
APPLICANT: Fletterick, Robert J.
APPLICANT: Wagner, Richard L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
```

```
178 KAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | | : | : | : | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               271 KREAVQEERQRG-----KDKDG-DGEGAGGAPEEMPVDRILEAELAVEQKSDQGVEGP 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----TDSTPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDL 461
                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: LEID, MARK
APPLICANT: LEID, MARK
APPLICANT: CHAMBON, PHILIPPE
APPLICANT: CHAMBON, PIERRE
TITLE OF INVENTION: NOVEL HETERODIMERIC STEROID RECEPTOR
TITLE OF INVENTION: PROTEINS, GENES ENCODING SAME, AND USAGE THEREOF
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83 PDSSSPNP--LP-----QGVPPPSPPGPPLPPSTA-----PTLGGSGAPPP---PPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 298 NAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSVGM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     118 PPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P--PPPLGSPFPVISSSMGSPGLPPPAPPGFSGPVSSPQINSTVSLPGGGSG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       238 LESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGEGTCAVCGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358 VKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRAL------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 533;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15.9%; Score 530.5; DB 4; 29.5%; Pred. No. 1.2e-32; tive 71; Mismatches 189;
471 YPEQQGRFAKLLIRLPALRSIGLKCLEHLFFFKL 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: Sterne, Kessler, Goldstein & Fox
STREET: 1100 New York Avenue NW Suite 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CUCRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/216,592A
FILING DATE: 23-MAR-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 07/825,667
FILING DATE: 24-JAN-1992
ATTORNEY/AGENT INFORMATION:
NAME: GOLDSTEIN, JORGE A
REGISTRATION NUMBER: 29,021
REFERENCE/DOCKET NUMBER: 1383.0060002
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS OSTWARE: Patentin Poli-
                                                                                                                                                                                                                                                                                                       Sequence 4, Application US/08216592A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (202) 371-2540 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     533 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 29.5%
Matches 150; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM MEDIUM TYPE: Floppy
```

17;

297

```
ò
                                                                     g
                                                                                                                                              ð
                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 11572, Application US/09949016

Sequence 11572, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

FAPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF;

FILE REPERENCE: CLOID 307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-0

PRIOR FILING DATE: 2000-10-0

PRIOR FILING DATE: 2000-10-0

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOCTWARE: PASESEQ for Windows Version 4.0

LENGTH: 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17;
                                                                                                                                                                             | :|| :|: : :|| : | || | : : || :|| | : :|| :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| 
                                                                                                                                                                                                                                                                                                                                    118 PPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPM 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     123 PDSSSPNP--LP-----QGVPPPSPPGPPLPPSTA------PSLGGSGAPPP---PPM 164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     251 RSSGKHYGVYSCEGCKGFFKKTIRKDLTYSCRDNKDCTVDKRQRNRCQYCRYQKCLATGM 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         323 GGTGGSGSSPND------PVTNICQAAD-----KQLFTLV------EWAKRIPHFSSL 363
                                                                                                                         PKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQC-LRGFGEWLDSI-KD 519
                                                                                                                                                                                                                                                                                         520 FSLNLQSLNLDIQALACLSALSMIT-ERHGLKEPKRVEELCNKITSSLKDH-QSKGQALE 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            178 KAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAA 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 298 NAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGM 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358 VKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRAL------ 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   311 KREAVOEERORG-----KDKDG-DGEGAGGAPEEMPVDRILEAELAVEOKSDQGVEGP 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----TDSTPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDL 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         363 GGTGGSGSSPND-----PVTNICQAAD----KQLFTLV------EWAKRIPHFSSL 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     462 PKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQC-LRGFGEWLDS---- 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                165 P--PPPLGSPFPVISSSMGSPGLPPPAPPGFSGPVSSPQINSTVSLPGGSG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            238 LESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGEGTCAVCGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 577;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15.9%; Score 530.5; DB 4; 29.4%; Pred. No. 1.3e-32; tive 70; Mismatches 189;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :|:| | | | | | | 484 GRFAKILIRLPALRSIGLKCLEHLFFFKL 512
                                                                                                                                                                                                                                                                                                                                                                                                                                                    578 PTESKVLGALVELRKICTLGLQRIFYLKL 606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 29.49
Matches 151; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: PRT
; ORGANISM: Human
US-09-949-016-11572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
US-09-949-016-11572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          407
                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                ò
```

THIS PAGE BLANK (USPTO)

Sequence 67, Appil Sequence 2, Appil Sequence 16, Appil Sequence 37, Appil Sequence 39, Appil Sequence 39, Appil Sequence 41, Appil Sequence 75, Appil Sequence 61, Appil

US-09-853-386-32 US-09-853-386-35 US-09-853-386-36 US-09-853-386-45 US-10-205-951-74 US-10-205-951-77 US-10-205-951-77

US-09-853-386-40 US-09-853-386-97 US-10-205-951-76

3 US-10-005-169-4 US-10-414-080-15 US-10-605-169-2 US-09-853-386-69 US-09-853-386-69 US-09-853-386-69 US-09-853-386-39 US-09-853-386-39 US-09-853-386-39 US-09-853-386-39 US-09-853-386-39 US-09-853-86-39 US-10-205-951-79 US-10-205-951-80 US-10-205-951-80 US-10-205-951-80 US-10-205-951-80 US-10-205-951-80 US-10-205-951-80 US-10-205-951-80 US-10-205-951-80 US-10-205-951-80 US-10-205-951-80

```
US-09-853-386-64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 626
1736
1684.5
1684.5
1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
  March 12, 2005, 17:51:17 ; Search time 139 Seconds
   (without alignments)
   1485.488 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                             Published Applications AA:*

1: /cgn2 6/ptodata/1/pubpaa/USO7_PUBCOMB.pep:*
2: /cgn2 6/ptodata/1/pubpaa/USO7_NEW_PUB_pep:*
3: /cgn2 6/ptodata/1/pubpaa/USO6_PUBCOMB.pep:*
4: /cgn2 6/ptodata/1/pubpaa/USO6_PUBCOMB.pep:*
5: /cgn2 6/ptodata/1/pubpaa/USO6_PUBCOMB.pep:*
6: /cgn2 6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
7: /cgn2 6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
8: /cgn2 6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
9: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
10: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
11: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
11: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
13: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
14: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
15: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
16: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
17: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
18: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
18: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
18: /cgn2 6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*
18: /cgn2 6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
19: /cgn2 6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
10: /cgn2 6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
                                                                                                                                                                     MPCVQAQYSPSPPGSSYAAQ......EDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                 1396920
             GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                           of hits satisfying chosen parameters:
                                                                                                                                                                                                                                     1396920 seqs, 329844858 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                 protein search, using sw model
                                                                                                                                                                                                           Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                        seq length: 0
seq length: 200000000
                                                                                                                                           US-10-608-863-2
3337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length D
                                                                                                                                                                                                BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                            score:
                                                                                                                                                                                                Scoring table:
                                                              OM protein -
                                                                                                                                                                                                                                                               Total number
                                                                                                                                                                                                                                                                                        Minimum DB
Maximum DB
                                                                                                                                                                        Sequence:
                                                                                                                                                                                                                                     Searched:
                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                        Run on:
                                                                                                                                           Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Result
```

```
Sequence 64, Application US/09853386

Sequence 66, Application US/09853386

Patent No. US20020049151A1

GENERAL INFORMATION:

APPLICANT: Murphy, Evelyn

APPLICANT: Breenihan, Barry

APPLICANT: Conneely, Orla

APPLICANT: Fitzgerald, Oliver

TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors

TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors

FILE REFERENCE: PO1972US1

CURRENT APPLICATION NUMBER: US/09/853,386

CURRENT FILING DATE: 2001-05-11

PRIOR APPLICATION WINBER: US 60/203645

PRIOR APPLICATION ON SUBFAMER: US 60/203645

NUMBER OF SEQ ID NOS: 153

SOSTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNDDYTKLIMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MPCVQAQXSPSPPGSSYAAQTXSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 3333; DB 9; Length 626;
Pred. No. 3.5e-217;
0; Mismatches 1; Indels
ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 99.8%;
Matches 625; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-853-386-64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                පු
```

Sequence 64, Appl Sequence 14, App Sequence 65, Appl Sequence 96, Appl

Sequence 116, Ap Sequence 63, Appl

US-09-853-386-64
US-09-853-386-65
US-09-853-386-65
US-09-853-386-63
US-09-853-386-63
US-09-853-386-70
US-09-853-386-64
US-09-853-386-64
US-09-853-386-68
US-09-853-386-68
US-09-853-386-68
US-09-853-386-73

264397937

3074 3074 3074

3333 3316 3316 3316 3299.5 3299.5 3133.5

Sequence 13, Sequence 70, Ay Sequence 17, Sequence 64, Sequence 66, Ay

Sequence

300

300 360

240 240 360 420 420 480 480 900

9 9

ò

ò

ઠ

540 540 009

В

g ò 셤 ò , 명 ò 셤 ò g ò 셤 ò g ò d

ò

```
APPLICANT: Murphy, Evelyn
APPLICANT: Murphy, Evelyn
APPLICANT: Mrephy, Evelyn
APPLICANT: Bresnihan, Barry
APPLICANT: Conneely, orlea
APPLICANT: Extragrand, Oliver
TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the NURR
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
CURRENT APPLICATION NUMBER: US/09/853,386
CURRENT FILING DATE: 2001-05-11
PRIOR APPLICATION NUMBER: US 60/203645
PRIOR PILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA 120
SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                             421 PIDQAAAGTDAEHVQQPYNLITASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                    COHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                         VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RISIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481 RISIRSNTARDKFVFCNGLVLHRLQCLRGFGGWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                               PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                    241 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.4%; Score 3316; DB 9;
99.4%; Pred. No. 5e-216;
tive 1; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601 IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Sequence 65, Application US/09853386; Patent No. US20020049151A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin version 3.1 SEQ ID NO 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 99.4<sup>3</sup>
Matches 622; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: HUMAN
US-09-853-386-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
US-09-853-386-65
                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                              361
                                     121
                                                                                     181
                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                               g
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
             SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 14, Application US/10414080
| Publication No. US20330220288A1
| GENERAL INFORMATION |
| APPLICANT: MILLICAN, SHANNON E. APPLICANT: CONNEELY, ORLA M. APPLICANT: CONNEELY, ORLA M. APPLICANT: CONNEELY, ORLA M. APPLICANT: MILBRANDT, JEFFREY |
| TITLE OF INVENTION: NOR-1 AND NUR77 NUCLEAR RECEPTORS AS TARGETS FOR TITLE OF INVENTION: ANTI-LEUKEMIA THERAPY |
| FILE REFERENCE: PO2454U51 |
| CURRENT APPLICATION NUMBER: US/10/414,080 |
| CURRENT FILING DATE: 2003-04-15 |
| PRIOR APPLICATION NUMBER: 60/373,238 |
| PRIOR FILING DATE: 2002-04-17 |
| NUMBER OF SEQ ID NOS: 36 |
| SEQ ID NO 14 |
| SEQ ID NO 14 |
| LENGTH 626 |
| WALLOW CONTRACT OF SEQ ID NOS: 36 |
| LENGTH 626 |

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                            HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGGGTCAVCGDNAA
                                                                                                                                                                                                                                                    HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                 RLSIRSNTAEDKEVFCNGLVLHRLOCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                          PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                       CQHYGVRICEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                            VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 3333; DB 15;
Pred. No. 3.5e-217;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601 IFYLKLEDLVSPRSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 99.8%;
Matches 625; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CRGANISM: Homo sapiens US-10-414-080-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
US-10-414-080-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                               121
                                                                                                                                                                    181
                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                    181
               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
```

us-10-608-863-2.rapb

```
241 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGGGTCAVCGDNAA 300
                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                         SSPEDEVLPSTSMYFKOSPPSTPTTPAFPPOAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                          CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSVGMVKE 360
                                                                                                                                                                                                                                                                                                                                                                                                                    PIDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFIDLPKEDQTLLIESAFLELFVL 480
                                                                                             181 PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAAGSQAAALEG
                                                                                                                                                                                                                                                                   301 CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                PIDQAAAGTDAEHVQQFYNLLTASIDVSRSWAERIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481 RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                        241 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                   VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                    PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
  Sequence 116, Application US/10659004
Publication No. US20050048507A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                           121
                                                                                                    셤
                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                               õ
                                                                                                                                                      ò
                                                                                                                                                                                          셤
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 96, Application US/09853386

Patent No. US20020049151A1

GENERAL INFORMATION

GENERAL INFORMATION

APPLICANT: Bresnihan, Barry

APPLICANT: Connelly, Orla

APPLICANT: Fitzgerald, Oliver

TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the NURR

TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors

TITLE OF TILLE OF THE SET ON TO SUPPRESSION OF THE NURR TILLE OF THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON THE SET ON 
                                                                                                                                                      300
                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                  PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHHHHOOOPQQPSIPPA 120
                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                      SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLIMDLGSTEITATATTSLPSIST 60
                                                                                          181 PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAAGSQAAALEG
                                                                                                                                                      HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                              WATDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                         361 VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                               PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ٠.
۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 99.4%; Score 3316; DB 9;
Best Local Similarity 99.4%; Pred. No. 5e-216;
Matches 622; Conservative 1; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601 IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601 IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 153
SOFTWARE: PatentIn version 3.1
SEQ ID NO 96
LENGTH: 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
US-09-853-386-96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-853-386-96
                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                 181
                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                    g
                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                   δ
                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

요 ò g 8 ద Ś g ò g ò 요 à g ò 셤 ò g ð 셤 ò g

```
FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                    FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQQQQDSIPPA 120
                                                                                                                                                                                                                                                   SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                 PIVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALEG 240
                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIDQAAAGIDAEHVQQFYNLLIASIDVSRSWAEKIPGFIDLPKEDQILLIESAFLELFVL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                          1 MPCVQAQXSPSPPGSSSXAAQTXSSEYTTEIMNPDXTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                         SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                          PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COHYGURICEGCKGFFKRIVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RISIRSNIAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPNESKVLVALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                              HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                       1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 13, Application US/10414080
Publication No. US20030220288A1
GENERAL INFORMATION:
APPLICANT: MULLICAN, SHANNON E.
APPLICANT: MILBRANDT, JEFFREY
TITLE OF INVENTION: NOR-1 AND NUR77 NUCLEAR RECEPTORS AS TARGETS FOR TITLE OF INVENTION: ANTI-LEUKEMIA THERAPY
FILE REPERENCE: P02454US1
CURRENT APPLICATION: NUMBER: US/10/414,080
CURRENT FILING DATE: 2003-04-15
PRIOR FILING DATE: 2002-04-17
                                                                   <del>ا</del> ;
                                 625;
                                Length
                              Score 3299.5; DB 9; Length
Pred. No. 6.5e-215;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IFYLKLEDLVSPPSIIDKLFLDTLPF 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IFYLKLEDLVSPPSIIDKLFLDTLPF
                                98.9%;
                                 Query Match 98.9
Best Local Similarity 99.2
Matches 621; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 36
SOFTWARE: PatentIn Ver. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
CAGANISM: Homo sapiens
US-10-414-080-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
US-10-414-080-13
US-09-853-386-63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 13
LENGTH: 625
                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        009
                                                                                                                                                                               61
                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                       g
                                                                                                                                                                               8
                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the NURR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 63, Application US/09853386

GENERAL INFORMATION:

APPLICANT: Murphy, Evelyn

APPLICANT: Bresnihan, Barry

APPLICANT: Conneely, Orlae

TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the N

TITLE OF INVENTION: Therapeutic Approaches to Diseases by Suppression of the N

TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors

TITLE OF INVENTION: PLOSTUSI

TITLE OF INVENTION: 2005-01-1

FILE REFERENCE: PO1972US1

CURRENT APPLICATION NUMBER: US/09/853,386

CURRENT FILING DATE: 2001-05-11

PRIOR APPLICATION NUMBER: US 60/203645

PRIOR FILING DATE: 2000-06-12

NUMBER OF SEQ ID NOS: 153

SEQ ID NO 63

LENGTH: 625
                                                                       ö
                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                    FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHHHHQQQQQQDSIPPA 120
                                                                                                                                                                                                                                                      SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MPCVQAQYSPSPPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                               SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                                                                   PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAAALEG
                                                                                                                                                                                                                                                                                                                                                                                                  HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RISIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                                                                                                                                                                                          PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                    HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COHYGVRICEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPICMMVALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                       Gaps
                                                                       .
0
                                   626;
                                   Length
                                                                     Indela
                                                                       3;
                                   DB 17;
                                   Score 3316; DB 1'
Pred. No. 5e-216;
                                                                     1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601 IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601 IFYLKLEDLVSPPSIIDKLFLDTLPF
                                   99.4%
                                Query Match
Best Local Similarity 99.4
Matches 622; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
ORGANISM: HUMAN
US-10-659-004-116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
US-09-853-386-63
                                                                                                                                                                               61
                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
```

'n

```
61 FWEGYSSNYELKPSCLYQWQPSGPRPLIKWEEGRAHGYHHHHHHHHHHHHHHQQQQQQQP 120
                                                                                                                                                                                                                                                                                                241 AAAAAAAAGSQAAALEGHPYGLPLAKRAAALAFSPLGITTSPTTSSLLGESPSLPSPPNR 300
                                                                                                                                                                                                                                                                                                                                                                                                                                     361 CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPVCMMNALV 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421 RALTDSTPRDLDYSRYCPADQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPK 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481 EDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLR 540
                                                                                                                                        FVEGYSSNYELKPSCVYQMQ----RPLIKVEEGRAPSYHHHHHHHHHHHQQ----- 110
                                                                                                                                                                                                                                                                              PGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLG-- 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       404 RALIDSTPRDLDYSRYCPIDQAAAGIDAEHVQQFYNLLIASIDVSRSWAEKIPGFIDLPK 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLN 523
                                                                                          1 MPCVQAQYSPSPPGSSYAAQTYGSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSFST
                                                                       1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                ---AAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSR
                                                                                                                                                                                                                                                                                                                                                                                                                   SSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COYCRFOKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALV
                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 17, Application US/10414080

Publication No. US20030220288A1

GENERAL INFORMATION:
APPLICANT: MULLICAN, SHANNON E.
APPLICANT: MULBRANDT, USFFREY

TITLE OF INVENTION: NORT-LEUKEMIA THERAPY
TITLE OF INVENTION: ANTI-LEUKEMIA THERAPY
TITLE OF INVENTION: NORT-LEUKEMIA THERAPY
TITLE OF INVENTION: ANTI-LEUKEMIA 14,080

CURRENT APPLICATION NUMBER: US/10/414,080

CURRENT PILING DATE: 2003-04-15
PRIOR APPLICATION NUMBER: 60/373,238

PRIOR APPLICATION NUMBER: 60/373,238

NUMBER OF SEQ ID NOS: 36

SOFTWARE: Patentin Ver. 2.1
                                   17;
     643;
     Length
   93.9%; Score 3133.5; DB 9; Length 92.4%; Pred. No. 1.2e-203; ive 10; Mismatches 22; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 92.4%
Matches 594; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Sus scrofa
US-10-414-080-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 9
US-10-414-080-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID NO 17
LENGTH: 643
                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                584
                                                                                                                                                                                                                                                                              169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                                                                                                 284
                                                                                                   셤
                                                                                                                                                                   g
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                        ò
                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Squence 70, Application US/09853386

Facture 70, Application US/09853386

Facture No. US20020049151A1

GENERAL INFORMATION:

APPLICANT: MITTING FOR THE STATE OF THIS OF INVESTIGATION:

APPLICANT: Firegerald, Oliver

TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors

TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors

FILE REFERENCE: P01972US1

CURRENT FILING DATE: 2001-05-11

PRIOR APPLICATION NUMBER: US 60/203645

FRIOR PILING DATE: 2001-05-12

NUMBER OF SEQ ID NOS: 153

SOFTWARE: Patentin Version 3.1

FRIOR PILING DATE: 2001-05-12

FRIOR PILING DATE: 2001-05-12

FRIOR PILING DATE: 2001-05-12

FRIOR PILING DATE: 2001-05-13

FRIOR PILING DATE: 2001-05-12

                                                                                                                                                                                                                                                                             240
                                                                                                                                        120
                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                       VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              599
                                                                                                                                                                        120
                                                                                                                                                                                                                                        121 SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            539
                                                                       9
                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                        FVEGYSSNYELKPSCVYQMQRPLIKVEGRAPSYHHHHHHHHHHHHQQQPGIPPA
                                                                                                                                                                                                          SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV
                                                                                                                                                                                                                                                                                                HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAERIPGFTDLPKEDQTLLIESAFLEL-VL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                     1 MPCVQAQYSPSPPGSSYAAQTYSSBYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                            PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                   COHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Gaps
     DB 15; Length 625;
 Score 3299.5; DB 15; Lengt
Pred. No. 6.5e-215;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IPYLKLEDLVSPPSIIDKLFLDTLPF 626
   98.9%;
99.2%;
Query Match 98.9
Best Local Similarity 99.2
Matches 621; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; LENGTH: 643
; TYPE: PRT
; ORGANISM: Sus scrofa
US-09-853-386-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
US-09-853-386-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                        61
                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                   셤
                                                                                                                                                                 a
                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                       ઠે
                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
```

ဖ

```
Sequence 64, Application US/10755889
Publication No. US20040111823A1
GRNERAL INFORMATION:
GRNERAL INFORMATION:
GRNERAL INFORMATION:
TITLE OF INVENTION:
PATHWAY
TITLE OF INVENTION:
PATHWAY
TITLE OF INVENTION:
PATHWAY
TITLE OF INVENTION:
PATHWAY
TITLE OF INVENTION:
PATHWAY
TITLE OF INVENTION:
PATHWAY
CURRENT APPLICATION NUMBER: US/10/755,889
CURRENT FILING DATE: 2004-01-13
PRIOR FILING DATE: 2003-01-14
PRIOR FILING DATE: 2003-01-14
PRIOR FILING DATE: 2003-01-12
PRIOR FILING DATE: 2003-05-12
                                 'n
                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                        343
                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                              110
                                                                                                                                                                                            168
                                                                                                                                                                                                                                                                                                                         283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       583
                                                                                                                                                                                                               COYCRFOKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALV 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RALTDSTPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPK 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLN 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541 LOSLNIDIOALACLSALSMITERHGLKEPKRVEELCNKITSSLKEHOSKGDALEPTEPKV 600
                                                                9
                                                                                            9
                                                                                                                                                  241 AAAAAAAAGSQAAALEGHPYGLPLAKRAAALAFSPLGLTTSPTTSSLLGESPSLPSPPNR
                                                                                                                                                                                                                                                                                                                                                                                         SSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                          301 STASGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPVCMMNALV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RALTDSTPRDLDYSRYCPADQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPK
                                                              1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                FVEGYSSNYELKPSCVYQMQ----RPLIKVEEGRAPSYHHHHHHHHHHQQQ-----
                                                                                                                                                                                            -- QHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIA
                                                                                                                                                                                                                                                            PGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLG--
                                                                                                                                                                                                                                                                                                                           ---AAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKV
                                 Gaps
                                17;
 DB 15; Length 643;
                                 22; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LGALVELRKICTLGLORIFYLKLEDLVSPPSIIDKLFLDTLPF 626
Query Match
93.9%; Score 3133.5; DB 1:
Best Local Similarity 92.4%; Pred. No. 1.2e-203;
Matches 594; Conservative 10; Mismatches 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS: 823
SOFTWARE: PatentIn version 3.2
SEQ ID NO 64
LENGTH: 587
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
US-10-755-889-64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                61
                                                                                                                                                            61
                                                                                                                                                                                              111
                                                                                                                                                                                                                                                            169
                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                           227
                                                                                                                                                                                                                                                                                                                                                                                         284
                                                                                                                                                                                                                                                                                                                                                                                                                                                         344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                              셤
                                                                                                                              ò
                                                                                                                                                         요
                                                                                                                                                                                            ð
                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

```
APPLICANT: Murphy, Evelyn
APPLICANT: Murphy, Evelyn
APPLICANT: Murphy, Evelyn
APPLICANT: Conneal, Darry
APPLICANT: Conneal, Oliver
APPLICANT: Fitzgerald, Oliver
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
FILE REFERENCE: P01972US1
CURRENT APPLICATION NUMBER: US/09/853,386
CURRENT APPLICATION NUMBER: US 60/203645
PRIOR FILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 153
SOFTWARE: Patentin version 3.1
SEQ ID NO 66
              ö
                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                       339
                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                      159
                                                                                                                                                               219
                                                                                                                                                                                 279
                                                                                                                                                                                                                                                                                                                                                RRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMM 399
                                                                                                                                                                                                                                                                                                                                                                                                             459
                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FSLNIQSLNIDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                           66
                                                                       9
                                                                                                                       61 HHHHHHHQQQHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEA
                                                                                                                                                                                                                                            241 PPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKR
                                                                                                                                                                                                                                                                                                                                                                    1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLIMDLGSTEITATATTSLPSIST
                                                           1 MDLGSTEITATATTSLPSISTFVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHH
                                                                                                      100 HHHHHHHHHQQQHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEA
                                                                                                                                                                 LPSAPGCIAPGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAA
                                                                                                                                                                                                                            ALSLPLGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPS
                                                                                                                                                                                                                                                                                       PPSRSSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKR
                                                                                                                                                                                                                                                                                                                                                                                                               NALVRALTDSTPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FSINLOSINLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPT
                                            40 MDLGSTEITATATTSLPSISTFVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
8
              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ESKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 628;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92.1%; Score 3074; DB 9; 92.2%; Pred. No. 1.2e-199; iive 12; Mismatches 29;
 5.3e-203;
              0; Mismatches
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 66, Application US/09853386 Patent No. US20020049151A1 GENERAL INFORMATION:
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus morvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
 Best Local Similarity 99.8
Matches 586; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Simi
Matches 582;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-853-386-66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-853-386-66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 628
                                                                                                                                                                                                                               220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        520
                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                     340
                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                400
                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM:
                                                                                                                                                                                          g
                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                              ઠે
                                                                   임
                                                                                                                                 a
                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                          ò
                                                                                                      ò
```

ò

93.6%; Score 3123; DB 16; Length 587;

Query Match

```
APPLICANT: Murphy, Evelyn
APPLICANT: Murphy, Evelyn
APPLICANT: Conneely, orlu
APPLICANT: Conneely, orlu
APPLICANT: Conneely, orlu
APPLICANT: Conneely, orlu
APPLICANT: Fitzgerald, Oliver
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
CURRENT APPLICATION NUMBER: US/09/853,386
CURRENT FILING DATE: 2001-05-11
PRIOR PILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 153
SOFTWARE: Patentin version 3.1
TRANTH: 628
                                                                                                                                                                                     235
                                                                                                                                                                                                                                                                                                                                                                                                                                                            475
                                                                                                                                      119 IPPPSGPEDEVLPSTSMYFKQSPPSTPTTPGFPPQAGALWDDELPSAPGCIAPGPLDPQ 178
                                                                                                                                                                                                                                                      295
                                                                                                                                                                                                                                                                                       297
                                                                                                                                                                                                                                                                                                                                                                                                                           417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               597
                                                                                                                                                                                                                                                                                                                         GDNAACQHYGVRTCEGCKGFFKRTVQKWAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                       61 FMEGYPSSCELKPSCLYQMPPSGPRPLIKMEEGREHGYHHHHHHHHHHHHQQ--QQPS
                                                                                                                                                                                                         179 MKAVPPMAAARFPIF-FKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                                                                                                         YSRYCPTDQATAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ELFVIRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP
                                                                                                                                                                                       MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAGSQA
                                                                                                                                                                                                                                                        AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVC
                                                                                                                                                                                                                                                                                                                                            GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                                                                                                                                                                                           GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                            YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                      FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHQQQPPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 3074; DB 9;
Pred. No. 1.2e-199;
2; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 598 QGLQRIFYLKLEDLVSPPSVIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 73, Application US/09853386 Patent No. US20020049151A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 92.2%;
Matches 582; Conservative 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-853-386-73
                                                                                                                     117
                                                                                                                                                                                     177
                                                                                                                                                                                                                                                        236
                                                                                                                                                                                                                                                                                       238
                                                                                                                                                                                                                                                                                                                       296
                                                                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                                                                           356
                                                                                                                                                                                                                                                                                                                                                                                                                                                            416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            478
                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                           358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  596
                                        ∂
                                                                           g
                                                                                                                 δ
                                                                                                                                             셤
                                                                                                                                                                                    8 G
                                                                                                                                                                                                                                                   ⋧
                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Murphy, Evelyn
APPLICANT: Murphy, Evelyn
APPLICANT: Murphy, Evelyn
APPLICANT: Conneely, Orlver
APPLICANT: Conneely, Orlver
APPLICANT: Conneely, Orlver
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
TITLE OF INVENTION: Subfamily of Nuclear Transcription Factors
TITLE OF ILLING DATE: 2001-05-11
CURRENT FILING DATE: 2000-05-11
PRIOR PILING DATE: 2000-05-12
NUMBER OF SEQ ID NOS: 153
SOFTWARE: PatentIn version 3.1
SEQ ID NO 68
LENGTH: 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                      116
                                                                                   118
                                                                                                                                   235
                                                                                                                                                                                                                       237
                                                                                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                                                                                                                                          357
                                                                                                                                                                                                                                                                                                                                                                                             415
                                                                                                                                                                                                                                                                                                                                                                                                                            417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   418 YSRYCPIDQATAGIDAEHVQQFYNLLIASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                597
                                                                                                                   117 IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                                                                                                                      236 AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGGGTCAVC 295
                                                                                                                                                                                                                                                                                                                         GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                            YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL 475
                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                     1 MPCVQAQXSBSPPGSTYATQTYGSEYTTEIMNPDYAKLTMDLGSTGIMATATTSLPSFST
                                                                                                                                                                                                                                                                         238 AALEGHPYGLPLAKKTATLTFPPLGLTASPTASSLLGESPSLPSPPNRSSSSGEGTCAVC
                                                                                                                                                                                                                                                                                                                                        GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                478 ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  538 CLSALSMITERHGLKEPKRVEELCNKITSSIKDHORKGQALEPSEPKVLRALVELKKICT
                                                    FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHQQQHQQPS
                                                                                                                                                                                     MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 92.1%; Score 3074; DB 9;
Best Local Similarity 92.2%; Pred. No. 1.2e-199;
Matches 582; Conservative 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LGLORIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-853-386-68
; Sequence 68, Application US/09853386
; Patent No. US20020049151A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89-982-853-80-SD
                                                                                                                                                                                                                                                                                                                                                                                                                                                            416
                                                                                                                                                                                                                                                                                                                                                                                                                           358
                                                  61
                                                                                                                                                                                    177
                                                                                                                                                                                                                                                                                                                       296
                                                                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                                                                         356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  596
                                                                            g
                                                                                                                   ò
                                                                                                                                               g
                                                                                                                                                                                ઠે
                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                ò
```

œ

ð g ò 엄 ò g ò g à a ò ద ò g ઠ d ò g ò ద

```
415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     595
                                                       116
                                                                                         118
                                                                                                                                117 IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                   235
                                                                                                                                                                                                                            295
                                                                                                                                                                                                                                                                                                 GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV 355
                                                                                                                                                                                                                                                                                                                                                                             298 GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      597
                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
US-10-414-080-15
i Sequence 15, Application US/10414080
i Publication No. US2030220288A1
i GENERAL INFORMATION:
i APPLICANT: MULLICAN, SHANNON E.
i APPLICANT: MULLICAN, SHANNON E.
i TITLE OF INVENTION: NOR-1 AND NUR77 NUCLEAR RECEPTORS AS TARGETS FOR TITLE OF INVENTION: ANTI-LEUKEMIA THERAPY
i TITLE OF INVENTION: ANTI-LEUKEMIA THERAPY
i FILE REFERENCE: P02454US:
i CURRENT APPLICATION NUMBER: US/10/414,080
i CURRENT APPLICATION NUMBER: 04-15
i FRIOR APPLICATION NUMBER: 60/373,238
i PRIOR FILING DATE: 2002-04-17
                                                                            FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHQQQHQQPS
                                                                                                                                                                                                                                                                                 AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVC
                                                                                                                                                                                                                                                                                                                                                                                                                               GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                       MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                628;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92.1%; Score 3074; DB 15; 92.2%; Pred. No. 1.2e-199; iive 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              598 QGLQRIFYLKLEDLVSPPSVIDKLFLDTLPF 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LGLORIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 36
; SOFWARE: Patentin Ver. 2.1
; SEQ ID NO 15
; LENGTH: 628
; TYPE: PRT
; ORGANISM: RAT
US-10-414-080-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 92.2*
Matches 582; Conservative
                                                                                                                                                                                                                                         179
                                                                                           61
                                                                                                                                                                                                         177
                                                                                                                                                                                                                                                                                                                    238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            296
                      ,
                                                           61
                                                                                                                                                                                                                                                                               236
                                                                                                                                                                                                                                                                                                                                                        296
                                                                                                                                                                                                                                                                                                                                                                                                                                 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             476
                                                     ò
                                                                                    영
장
                                                                                                                                                                q
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                           357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 535
                                                                                                                                                                                                                                             237
                                                                                                                                                                                                                                                                                                                                                          355
                                                                                                                                                                                                                                                                                                                                                                                                                                 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLSALSMITERHGLKEPKRVEELCNKITSSLKDHOSKGQALEPTESKVLGALVELRKICT 595
                                                                                                                                117 IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                       119 IPPPSGPEDEVLPSTSMYFKQSPPSTPTTPGFPPQAGALWDDELPSAPGCIAPGPLDPQ 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        597
                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                             GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSV
                                                     FVEGYSSNYELKPSCVYOM----ORPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPS
                                                                                YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YSRYCPTDQATAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                   MPCVQAQYSPSPPGSTYATQTYGSEYTTEIMNPDYAKLTMDLGSTGIMATATTSLPSFST
                                                                                                                                                                                                         MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                                                                                                                 AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPSRSSSSGEGTCAVC
                                                                                                                                                                                                                                                                                                                    238 AALEGHPYGLPLAKRTATLTFPPLGLTASPTASSLLGESPSLPSPPNRSSSSGEGTCAVC
                                                                                                                                                                                                                                                                                                                                                        GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                                                                                                                                                                                                                                 GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDATPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQRKGQALEPSEPKVLRALVELRKICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4, Application US/10005169
; Publication No. US20020152492A1
; GENERAL INFORMATION:
; APPLICANT: Guenther, Catherine
; APPLICANT: Guenther, Catherine
; TITLE OF INVENTION: TRANSGENIC MICE CONTAINING NOR1 GENE
; TITLE OF INVENTION: TRANSGENIC MICE CONTAINING NOR1 GENE
; TITLE OF INVENTION: DISRUPTIONS
; TITLE OF INVENTION: DISRUPTIONS
; CURRENT APPLICATION NUMBER: US/10/005,169
; CURRENT FILING DATE: 2001-12-04
; PRIOR PELING DATE: 2000-12-06
; PRIOR APPLICATION NUMBER: US 60/251,794
; PRIOR PLING DATE: 2000-12-04
; PRIOR PLING DATE: 2001-09-24
; NUMBER OF SEQ ID NOS: 6
; SEQ ID NOS: 6
; SEQ ID NOS: 6
; SEQ ID NOS: 6
; ENAME.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92.1%; Score 3074; DB 13; 92.2%; Pred. No. 1.2e-199; iive 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               598 QGLQRIFYLKLEDLVSPPSVIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 92.23
Matches 582; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Ratus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-005-169-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 628
                                                                                                                                                                                                                                                                                                                                                                                           298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          418
                                                         61
                                                                                           61
                                                                                                                                                                                                         177
                                                                                                                                                                                                                                             179
                                                                                                                                                                                                                                                                                 236
                                                                                                                                                                                                                                                                                                                                                        296
                                                                                                                                                                                                                                                                                                                                                                                                                                 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              296
```

ઠ

us-10-608-863-2.rapb

	116	118	176	178	235	237	295	297	355	57	415	417	475	477	535	537	595	597		
1 MPCVQAQYSPSPPGSTYATQTYGSEYTTEIMNPDYAKLTMDLGSTGIMATATTSLPSFST 60	FVEGYSSNYELKPSCVVQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQQQQQQQQ	FWEGYPSSCELKPSCLYQMPPSGPRPLIKMEEGREHGYHHHHHHHHHHHHHQQQQPS	IPPASSPEDEVLPSTSMYFKQSPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP	IPPPSGPEDEVLPSTSMYFKQSPPSTPTTPGFPPQAGALWDDELPSAPGCIAPGPLLDPQ	MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA	MKAVPPMAAARFPIF-FKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA	AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGGGTCAVC	AALEGHPYGLPLAKRTATLTFPPLGLTASPTASSTLIGESPSLPSPPNRSSSGGEGTCAVC	GDNAACQHYGURTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV	GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV 3	GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALIDSTPRDLD	GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPICMMNALVRALTDATPRDLD	VSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAPL	YSRYCPTDQATAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL	ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA	ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA	CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT	CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQRKGQALEPSEPKVLRALVELKKICT	6 LGLQRIPYLKLEDLVSPPSIIDKLFLDTLDF 626	8 QGLQRIFYLKLEDLVSPPSVIDKLFLDTLPF 628
•••	61	61	117	119	177	179	236	238	296	298	356	358	416	418	476	478	536	538	596	598
q	ò	QQ	ò	QQ	ð,	셤	È	qq	ò	<del>Q</del>	ò	QQ	ò	qq	ò	qa	ò	<b>QQ</b> .	ò	qq

Search completed: March 12, 2005, 18:03:55 Job time : 141 secs

THIS PAGE BLANK (USPTO)

us-10-608-863-2.rpr

```
GenCore version 5.1.6

Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on:

March 12, 2005, 17:41:22 ; Search time 42 Seconds (without alignments)

1434.088 Million cell updates/sec

Title:

US-10-608-863-2

Perfect score:
3337
Sequence:
1 MPCVQAQYSPSPPGSSYAAQ.......EDLVSPPSIIDKLFLDTLPF 626

Scoring table:
BLOSUM62
Gapop 10.0 , Gapext 0.5
```

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Listing first 45 summaries

Database: PIR 79:\*
2: pir2:\*
3: pir2:\*
4: pir4:\*

Pred: No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

and is derived by analysis of the total score distribution.

	Description	neuron-derive	neuron derived orp	neuron-derived rec	T-cell nuclear rec		nuclear orphan rec	probable nuclear h	hormone receptor N	probable hormone r	nerve growth facto	DHR38 protein - fr	rotein -	steroi		acid		acid		H-2 region II bind	retinoid X recepto	 			retinoic acid rece		retinoic acid rece	retinoic acid rece	×	retinoic acid rece
SUMMARIES	ΩI	7193	JC2493	866671	A57040	A46225	I84692	A37251	833763	QRMSN1	JQ0623	S58238	S58205	T43348	G88408	\$13512	808080	A29491	S37781	A34418	D41727	184718	C40045	806123	A41651	A41977	B41977	A43786	150515	\$05051
	DB	7	7	7	~	7	8	~	~	-	7	7	N	Н	~	N	~	-	~	~	~	~	4	~	~	~	~	~	N	~
	Length	625	628	430	598	598	598	598	577	601	563	551	360	619	295	455	462	462	533	446	448	520	955	458	451	459	476	448	441	4
æ	Query Match	98.9	N	0	52.5	N	~	Н.	0	σ	œ	ഗ	0	o	v	œ	n	ω.	ഹ	15.7	15.6	15.6					15.4			
	Score	~	3074	2032	1751	1746	1728		1350.5	n	1277	1167	1023	554.5	554	543	531.5	530.5	529.5	525.5	521.5	521.5	521	520.5	519.5	514.5	514.5	511.5	509	207
	Result No.		7	e	4	S	9	7	80	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

retinoic acid rece	retinoid X recepto	retinoic acid rece	retinoic acid rece	retinoic acid rece	retinoid-X-recepto	retinoic acid rece	retinoid X recepto	retinoic acid rece	retinoic acid rece	RXR protein - Afri	retinoic acid rece	retinoic acid rece	retinoic acid rece	retinoid-X recepto	steroid hormone re
S06124	809592	C35991	A34714	A56558	A43781	S02827	A47278	826670	B34714	S47633	I50674	S26668	A33903	B41727	805979
~	٦	-	7	~	~	~	~	7	~	~	~	7	н	~	~
454	462	443	458	464	467	448	467	463	447	452	453	467	454	463	1443
	15.0 462												14.8 454	14.8 463	٦
15.2	15.0	15.0	15.0		15.0		15.0	14.9	14.9	14.8	14.8			492.5 14.8 463	14.8 1

## ALIGNMENTS

283416

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

283416 segs, 96216763 residues

Searched:

RESULT 1 S71930 neuron-deri C, Species: C, Date: 04- C; Accession R; Obkura, W B; Ochim: Bi A; Title: St A; Reference A; Accession A; Accession A; Accession A; Accession A; Accession A; Accession A; Accession C; Genetics: A; Note: DNA C; Genetics: A; Map Dosit C; Superfami C; Reywords: F; 290-377/D	ved receptor NO Homo saplens (m Feb-1998 #seque : \$71930 ructure, mappin ructure, mappin type: mRNA type: type type type: type type type type type type type type
Query Match Best Local Matches 62	'Match 98.9%; Score 3299.5; DB 2; Length 625; Local Similarity 99.2%; Pred. No. 4.8e-174; Nes 621; Conservative 1; Mismatches 3; Indels 1; Gaps 1;
<b>상</b> 옵	1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST 60 
è 8	61 FVEGYSSNYELKPSCVYQWQRPLIKVEEGRAPSYHHHHHHHHHHHQQQHQQPSIPPA 120 
ò a	121 SSPEDBVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180 
ð 8	181 PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAALES 240 
ò q	241 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA 300 

301 CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKB 360

ò

```
A;Status: translation not shown
A;Status: translation not shown
A;Molecule type: mRNA
A;Molecule type: mTNA
A;Rossiues: 1-430 <PET>
A;Cross-references: UNIPROT:P51179; EMBL:X86003; NID:g1065885; PIDN:CAA59993.1; PID:g106.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein, is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116
                                                  237
                                                                                                                                                                                                                                                                                                                 475
                                                                                       295
                                                                                                                          297
                                                                                                                                                                                                  357
                                                                                                                                                                                                                                         415
                                                                                                                                                                                                                                                                          417
                                                                                                                                                                                                                                                                                                                                      535
                                                                                                                                                                                                                                                                                                                                                                                                                           537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A,Gene: nor. 2
C,Superfamily: erbA transforming protein homology
C,Superfamily: erbA transforming protein homology
C,Keywords: DNA binding; zinc finger
C,Keywords: DNA binding; zinc finger
F;292-379/Pomain: erbA transforming protein homology #status atypical <ERBA>
F;292-379/Region: DNA binding
F;294-314/Region: zinc finger CCCC motif
F;312-316/Region: P box
F;313-335/Region: D box
F;372-378/Region: A box
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neuron-derived receptor NOR-2 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 16-Aug-2004
C;Accession: $6671
R;Petropoulos, 1:; Part, D.; Ochoa, A.; Zakin, M.M.; Lamas, E.
FEBS Lett. 372, 273-278, 1995
A;Title: NOR-2 (neuron-derived orphan receptor), a brain zinc finger proteir
A;Reference number: $66671
A;Accession: $66671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 FMEGYPSSCELKPSCLYQMPPSGPRPLIXMEEGREHGYHHHHHHHHHHHQQ--QQPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 FVEGYSSNYELKPSCVYOM----ORPLIKVEEGRAPSYHHHHHHHHHHHQQQHQQPS
                                  YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                                        ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCIRCFGEWLDSIKDFSLNLOSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                              ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGGWLDSIKDFSLNLQSLNLDIQALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                       AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPSRSSSSGEGTCAVC
                                                                                                                                                                 GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                    GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                                         GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 430;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60.9%; Score 2032; DB 2;
89.6%; Pred. No. 1.3e-104;
iive 10; Mismatches 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LGLORIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 89.63
Matches 379, Conservative
                                                                                                                              238
                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                358
                                                                                                                                                                                                                                                                                                                                                       418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            296
                                                                                           236
                                                                                                                                                                                                                                                                                                                    416
                                                                                                                                                                                                                                                                                                                                                                                          476
                                                                                                                                                                                                                                                                                                                                                                                                                               478
                                                                                                                                                                 296
                                                                                                                                                                                                                                           356
                   117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                              셤
                                                                                           ò
                                                                                                                      g
                                                                                                                                                               à
                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DUCATOR Gerived orphan receptor-1 - rat

Nalternate names: NOR-1

C.Species: Ratus norvegicus (Norway rat)

C.Species: Ratus norvegicus (Norway rat)

C.Date: 16-Mar-1995 #sequence_revision 26-May-1995 #text_change 09-Jul-2004

C.Species: Ratus norvegicus (Norway rat)

C.Date: 16-Mar-1995 #sequence_revision 26-May-1995 #text_change 09-Jul-2004

C.Species: Ratus norvegicus (Norway rat)

R.Schkuta, N.; Hijikuro, M.; Yamamoto, A.; Miki, K.

Biochem. Biochem. Biochypts. Res. Commun. 205, 1955-1965, 1994

A.Title: Molecular cloning of a novel thyroid/steroid receptor superfamily gene from cull A.Reference number: JC2493; MUD:95110348; PMID:7811288

A.Accession: JC2493; MUD:95110348; PMID:7811288

A.Accession: JC2493; MUD:95110348; PMID:7811288

A.Reference number: JC2 & Cannon, M. M.; Jamieson, G.A.

Brain Res. Mol. Brain Res. 23, 278-283, 1994

A.Reference number: 148179; MID:9433550; PMID:7914660

A.Accession: 148179

A.Scrimental Source in Num. 3433550; PMID:7914660

A.Accession: 148179

A.Scrimental Source: hippocampus

C.Skeywords: DNA binding; receptor; Zinc finger

C.Skeywords: DNA binding; receptor; Zinc finger

F.322-379/Region: DNA binding #status predicted

F.322-378/Region: DNA binding #status predicted

F.332-378/Region: DNA

F.331-335/Region: A box

F.372-378/Region: A box
                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                                   479
                                                                                                                                                                                                        540
                                                                                                                                                                                                                                             539
                                                                                                                                                                                                                                                                                                                    599
                                                                                                                                PIDQAAAGIDAEHVQQFYNLLIASIDVSRSWAEKIPGFIDLPKEDQILLIESAFLELFVL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FMEGYPSSCELKPSCLYQMPPSGPRPLIXMEEGREHGYHHHHHHHHHHQQ--QQPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
361 VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                     480 RISIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALAÇLSAL
                                                                                                                                                                                                                                                                                                     SMITERHGLKEPKRVEELCHKITSSLKDHQSKGQALEPNESKVLVALVELRKICTLGLQR
                                                      VVRIDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                        RISIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL
                                                                                                                                                                                                                                                                                 SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 628;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92.1%; Score 3074; DB 2;
llarity 92.2%; Pred. No. 1.2e-161;
Conservative 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                     600 IFYLKLEDLVSPPSIIDKLFLDTLPF 625
                                                                                                                                                                                                                                                                                                                                                         601 IFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              582;
                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     119
                                                                                                                                421
                                                                                                                                                                   421
                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                           g
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                        d
                                                        ò
                                                                                       임
                                                                                                                            ò
```

highly

Tue

```
A.Experimental source: brain A.B. backbone (NCBIN:123734, NCBIP:123736) A.B. backbone (NCBIN:123734, NCBIP:123736) A.B. backbone (Superfamily: probable hormone receptor NIO, nuclear; erbA transforming protein homolocy (Superfamily: probable hormone receptor NIO, nuclear; erbA transforming protein homology (ERBA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Status: preliminary
A;Molecule type: nucleic acid
A;Residues: 1-598 <LAW>
A;Cross-references: UNIPROT:Q06219; GB:S53744; NID:g264410; PIDN:AAB25138.1; PID:g26441
                                                                                                                                                                                                                                                                                                                                                                                  503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         149 LHNFHQNYVATTHMIEQRKTPVSRLSLFSFKQSPPGTPVSSCQMRFDGPLHVPMNPEPAG 208
                                                                                                                                                                                                                                                                  327 VCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEP 386
                                                                                                                                                                                                                                                                                                                                                         387 SQPSPPSPPICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTA 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIT 563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SISTFVEGYSSNYELKPSCVYOM----ORPLIKVEEGRAPSYHHHHHHHHHHHHHHHOOOH 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              113 QQPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Species: Mus musculus (house mouse)
C;Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Date: 21-Sep-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: A46225
R;Law, S.W.; Conneelly, O.M.; DeMayo, F.J.; O'Malley, B.W.
Mol. Endocrinol. 6, 2129-2135, 1992
A;Title: Identification of a new brain-specific transcription factor, NURR1.
A;Reference number: A46225; MUID:93149122; PMID:1491694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240 ASQLL--DIQVPSPPSRGSPSNBGLCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                                                                                                                                             298 VCLANKNCPVDKRRRNRCQYCRFQKCLAVGMVKBVVRTDSLKGRRGRLPSKPKS----P
                                                                                                                                                                                                                                                                                                                                                                                                                                             SIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHR
                                                                                         GHHLGYDPTAAAALSLPLGAAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    413 SMEIIRGWAEKIPGFADLPKADQDLLFESAFLELFVLRLAYRSNPVEGKLIFCNGVVLHR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MPCVQAQYSPSPPGSSYAAQTY----SSEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MPCVQAQYGSSPQGASPASQSYSYHSSGEYSSDFLIPBFVKFSMDLINTEI--TATTSLP
                                                                                                                                                                                ASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 52.3%; Score 1746; DB 2; 1
Best Local Similarity 54.4%; Pred. No. 8.8e-89;
Matches 362; Conservative 75; Mismatches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nuclear orphan receptor Nurrl - mouse N;Alternate names: Nur-related transcription factor 1
      LLDPPMKAVPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |||||||
LDTLPF 598
                                                                                                                                    209 SHHV---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Accession: A46225
                                                                                                                                                                                267
                                                                                                                                                                                                                                                                                                                                                                                                  353
                                                                                                                                                                                                                                                                                                                                                                                                                                             444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       533
                                                                                         208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                         유
                                      업
                                                                                         ò
                                                                                                                                                                           ઠે
                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary
A; Status: preliminary
A; Status: preliminary
A; Molecule type: mRM3
A; Residues: 1-598 «MAG>
A; Cross-references: UNIPROT:P43354; EMBL:X75918; NID:g415822; PIDN:CAA53518.1; PID:g4158
B; Okabe, T: Takayanagi, R: Imaaaki, K: Haji, M: Nawata, H:; Watanabe, T.
J: Immunol. 154, 3871-3879; 1995
A; Title: cDNA cloning of a NGFI-B/nur77-related transcription factor from an apoptotic has Reference number: 156260; MUID:95221892; PMID:7706727
A; Accession: 156260
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 64-464, W', 466-467, W', 469-598 «RES>
A; Cross-references: GB:S77154; NID:g913966; PIDN:AAB33999.1; PID:g913967
C; Genetics:
A; Gene: GBB:NURR1; TINUR; NOT
A; Cross-references: GB:624567; OMIM:601828
A; Map position: 2422-2423
C; Superfamily: probable hormone receptor NIO, nuclear; erbA transforming protein homolog
C; Keywords: DNA binding; zinc finger
F; 261-514/Domain: erbA transforming protein homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Species: Homo sapiens (man)
C; Date: 03-Oct-1995 #sequence revision 03-Oct-1995 #text_change 09-Jul-2004
C; Date: 03-Oct-1995 #sequence revision 03-Oct-1995 #text_change 09-Jul-2004
C; Accession. A57040; I56260; $38636
R; Mages, H. W.; Rilke, O.; Bravo, R.; Senger, G.; Kroczek, R.A.
Mol. Endocrinol. 8, 1583-1591, 1994
A; Title: NOT, a human immediate-early response gene closely related to the steroid/thyro
A; Reference number: A57040; MUID:95183071; PMID:7877627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18;
                      237
                                                                                                                                                                         AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVC 295
                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                                                GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFQKCLSV 355
                                                                                                                                                                                                                                                                                                             357
                                                                                                                                                                                                                                                                                                                                                                             358 GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPICMMALVRALTDATPRDLD 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  113 QQPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58
                                                                                                                298 GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                                                                                                                                                    GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MPCVQAQYSPSPPGSSYAAQTY----SSEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     57 SISTFVEGYSSNYELKPSCVYQM --- QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---- PGS
                                                                                      MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 52.5%; Score 1751; DB 2; 1
Best Local Similarity 54.5%; Pred. No. 4.7e-89;
Matches 363; Conservative 74; Mismatches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cell nuclear receptor NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                           418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YSR 420
                                                                                                                                                                                                                                                                                                                                                                                                                                           YSR
                                           119
                                                                                                                                                                           236
                                                                                                                                                                                                                      238
                                                                                    177
                                                                                                                                                                                                                                                                296
                                                                                                                                                                                                                                                                                                                                                    356
                                                                                                                                                                                                                                                                                                                                                                                                                                           416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106
                                                                                                                      q
                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                      원
                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
```

us-10-608-863-2.rpr

```
74;
54.1%;
             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: mRNA
A; Residues: 1-598 <NAK>
 Local Similarity
                                                                                                                                                                                                                                                                                                      209 SHHV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LDTLPF
             360;
                                                                                                                                                                                                                                                                                                                                   267
                                                                                                                                                                                                                                                                                                                                                                                                                                                    387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       533
                                                                                                                                                                                                                                                                                                                                                                                           327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   504
                                                                                                    57
                                                                                                                               59
                                                                                                                                                                                      901
                                                                                                                                                                                                                  172
                                                                                                                                                                                                                                               149
                                                                                                                                                                                                                                                                           208
             Matches
                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                       g
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                          δ
                                                                                                                                                                                   셤
                                                                                                                                                                                                               8
                                            8
                                                               g
                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A,Cross-references: UNIPROT:007917; EMBL:U01146; NID:9515968; PIDN:AAC52143.1; PID:95415
R;Scearce, L.M.; Laz, T.M.; Hazel, T.G.; Lau, L.F.; Taub, R.
d. Biol. Chem. 268, 8855-8861, 1993
A;Title: RNR-1, a nuclear receptor in the NGFI-B/Nur77 family that is rapidly induced in A,Reference number: A46050; MUID:93232045; PMID:8473329
A;Accession: A46050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        superfamily: probable hormone receptor N10, nuclear; erbA transforming protein homolog; keywords: DNA binding; nucleus; steroid hormone receptor; transcription regulation; zi;261-514/Domain: erbA transforming protein homology <BRBA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rat hippocampus: identificat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <SCE>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Residues: 1-181, A', 183-249, PSP', 253-361, G', 363, DOCFROT', 372-433, S', 435-598; Cross-references: GB:L08595; NID:G310215; PIDN:AAA42058.1; PID:G310216; Experimental source: liver and brain; Note: sequence extracted from NCBI backbone (NCBIN:129782, NCBIP:129783)
                                                                                                                                                                                                                                                                443
                                                                                                                                                                                                                                                                                           412
                                                                                                                                                                                                                                                                                                                                                                                563
                                                                                                                                                                                                                                                                                                                        503
                                                                                                                                                                                                                                                                                                                                                   472
                                                                                                                                                                                                                                                                                                                                                                                               620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    592
                                                                                                                    239
                                                                                                                                                326
                                                                                                                                                                           297
                                                                                                                                                                                                        386
                                                                                                                                                                                                                                  352
                               207
                                                           208
                                                                                        266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #text_change 09-Jul-2004
                                                                                                          LOCLRGFGEWLDSIXDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        -- PGS
                               - PSPAG
                                                           LHNFHQNYVATTHMIEQRKTPVSRLSLFSFKQSPPGTPVSSCOMRFDGPLHVPMNPEPAG
                                                                                        GHHLGYDPTAAAALSLPLGAAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPT
                                                                                                                                                ASSLIGESPSLPSPPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                         240 ASOLL - DIQVPSPPSRGSPSNEGLCAVCGDNAACOHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                                                        VCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEP
                                                                                                                                                                                                                        298 VCLANKNCPVDKRRRNRCQYCRFQKCLAVGMVKEVVRTDSLKGRRGRLPSKPKS----P
                                                                                                                                                                                                                                                              SQPSPPSPPICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTA
                                                                                                                                                                                                                                                                                                                       SIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHR
                                                                                                                                                                                                                                                                                                                                         564 SSLKDHQ--SKGQALEPTE-SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLF
   ----LPPQS----EEMMPHSGSVYYKPSSPPTPSTPSFQVQHSPMWDD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cispecies: Rattus norvegicus (Norway rat)
Cibacte: 02-Mug-1996 #text_cha
Cibacte: 02-Mug-1996 #text_cha
Cibactes ocin: 184682; As6050
Ripena de Ortiz, S.; Cannon, M.M.; Jamieson, G.A.
Brain Res. Mol. Brain Res. 23, 278-283, 1994
A;Title: Expression of nuclear hormone receptors within the
A;Reference number: 148178; MUID:94335560; PMID:7914660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nuclear orphan receptor HZF-3 - rat
N;Alternate names: thyroid/steroid receptor homolog RNR-1
                               ----VAGARFPLFHFKPSPPHPPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Status: preliminary; translated from GB/EMBL/DDBJ;Molecule type: mRNA;Residues: 1-598 <PEN>
                                                                                                                       209 SHHV-----
                                  LLDPPMKAVPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Molecule type: mRNA; Residues: 1-181,'A'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Accession: I84692
                                                                                                                                                                                                                                                                   387
                                                                                                                                                                                                           327
                                                                                                                                                                                                                                                                                                                                                                                   504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             593
                                                              149
                                                                                           208
                                                                                                                                                   267
                                                                                                                                                                                                                                                                                                                           444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                        ద
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                           ò
       유
                                  ò
                                                        셤
                                                                                        ò
                                                                                                                 ద
                                                                                                                                                 ò
```

Length 598;

DB 2;

Score 1728;

51.8%;

Query

```
rela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PID:918138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      steroid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nuclear hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Species: Homo sapiens (man) Cypecies: Homo sapiens (man) Cypecies: Plone sapiens (man) Cypecies: 28-Mar-1991 #sequence_revision 28-Mar-1991 #text_change 09-Jul-2004 Cypecies: 28-Mar-1991 #sequence_revision 28-Mar-1991 #text_change 09-Jul-2004 Cypecies: A37251, A61191, A61451 And Ai, Toback, F.G.; DeGroot, L.J. Markai, A.; Karthai, S.; Sakurai, A.; Toback, F.G.; DeGroot, L.J. Mol. Endocrinol. 4, 1438-1443, 1990 A.; Title: A human early response gene homologous to murine nur77 and rat NGFI-B, and A; A; Accession: A37251 MUID:91133413; PMID:2283997 A; Secsion: A37251 A; Sakurai translation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A37251
probable nuclear hormone receptor NAK1 - human
N;Alternate names: early response protein NAK1; nuclear hormone receptor ST-59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Cross-references: UNIPROT: P22736; GB: D49728; NID: G1813881; PIDN: BAA08565.1; A; Note: it is uncertain whether Met-1 or Met-35 is the initiator R; Bondy, G.P. R; Bondy, G.P. Cell Growth Differ. 2, 203-208; 1991 A; Title: Phorbol ester, forskolin, and serum induction of a human colon nuclea A; Reference number: A61191; MUID: 91329278; PMID: 1651101
                   18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             620
                                                                                                                                                                                                                                                                                                                                                                                                                          GHHLGYDPTAAAALSLPLGAAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPT 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 297
                                                                                                                                                      112
                                                                                                                                                                                                   105
                                                                                                                                                                                                                                            171
                                                                                                                                                                                                                                                                                         ---PGS 148
                                                                                                                                                                                                                                                                                                                                                                               LHNFHQNYVATTHMIEQRKTPVSRLSLFSFKQSRPGTPVSSCOMRFDGPLHVPMNPEPAG 208
                                                                                                                                                                                                                                                                                                                                      ---PSPAG 207
                                                                                                        58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQBP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SQPSPPSPPICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SSLKDHQ--SKGQALEPTE-SKVLGALVELRKICTLGLORIFYLKLEDLVSPPSIIDKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ASSLLGESPSLPSPPSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                        SISTFVEGYSSNYELKPSCVYOM- --- ORPLIKVEEGRAPSYHHHHHHHHHHHHQQQH
                                                                                                                                                                                                                                              113 QQPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP
                                                             ---SSEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                          108;
                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                  LLDPPMKAVPT ------VAGARFPLFHFKPSPHPPA--
Pred. No. 8.6e-88;
1; Mismatches 124;
                                                                     MPCVQAQYSPSPPGSSYAAQTY
```

```
S33763

hormone receptor NGFI-B homolog - African clawed frog

hormone receptor NGFI-B homolog - African clawed frog

c.Species: Xenopus laevis (African clawed frog)

C.Species: Xenopus laevis (African clawed frog)

C.Accession: S33763; S31713

C.Baccession: S33763; S31713

A.Fafitle: Cloning and sequencing of a Xenopus homologue of the inducible orphan receptor A.Fafitle: Cloning and sequencing of a Xenopus homologue of the inducible orphan receptor A.Fafetence number: S33763

A.Fafetence number: S33763

A.Facession: Accession: Bacession: Bacession: Bacession: Bacession: Bacession: Bacession: Bacession: Bacession: Bacession: Baces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQPS 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     117 IPPAS--SPEDEVLPSTSMYFKQSPPS--TPTTPAFPPQAGALWDEALPSAPGCIAPGPL 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     173 LDP----PMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAA 228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QRMSN1
probable hormone receptor N10, nuclear - mouse
probable hormone receptor N10, nuclear - comolog nur/77
C.Species: Mus musculus (house mouse)
C.Species: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88 CYPGSFTNQLDETMSSSGSDYYGSPCSIPSPSTPGFQNPQLPTWE----CSYGAYSPTQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LVDTDVFALAQNSSAGFPAV-----PLGQAPGVLDSSVLLDSPLSPS-KTRSPSSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  144 YDNMRHWTEQOKNSISQOTF--FSF-GTPAHSP-----NMAANPLKIAPATHRLDQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               414 QDLLLESAFLELFILRLAYRSRPEEGKLIFCNGVVLHRTQCVRGFGEWIDSIIEFSHSLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      229 AAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EGRCAVCGDNASCQHYGVRTCEGCKGFFKRTVQKNAKYICLANKDCPVDKRRRNRCQFCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QTLL I ESAFLELFVLRLS I RSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDS I KDFSLNLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  526 SLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDH------QSKGQALEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STPRD--LDYSRYCPTDQAAAGTDAE-HVQQFYNLLTASIDVSRSWAEKIPGFTDLPKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          577;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     626
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TESKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --SKLLGKLPELRTLCTQGLQRIFYLKLEDLVPPPPIVDKIFMDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                     40.5%; Score 1350.5; DB 2; Length
47.1%; Pred. No. 4.4e-67;
iive 88; Mismatches 162; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 47.19
Matches 305; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   303
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
A;Accession: A61191
A;Accession: A61191
A;Accession: A61191
A;Nolecule type: mRNA
A;Residues: 35-25.'1',254-598 <BON>
R;Chang, C.; Kokontis, J.; Liao, S.; Chang, Y.
S. Steroid Biochem. 34, 391-395, 1989
A;Title: Isolation and characterization of human TR3 receptor: a member of steroid recep
A;Reference number: A61451, MUID:90173205; PMID:2626032
A;Retence number: A61451
A;Residues: 1-261,'P', 263-369,'L',371-598 <CHA>
A;Residues: 1-261,'P', 263-369,'L',371-598 <CHA>
A;Cross-references: GB:L13740; NID:3292833; PIDN:AAA36763.1; PID:g292834
C;Genetics: A;Gene: GDB:HMR
A;Cross-references: GB:L25357; OMIM:139139
A;Gross-references: GB:L25357; OMIM:139139
C;Superfamily: probable hormone receptor N10, nuclear; erbA transforming protein homolog C;Keywords: DNA binding; hormone receptor; nucleus; transcription regulation; zinc finge F;265-514/Domain: erbA transforming protein homology <ERBA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 213 YDPTAAAALSL-PLGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLL 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | | | | | | | | | GCYPGPLSGPUSAPSPSTPSFQPPQLSPWDGSFGHFSPSQTYEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G----ESPSLPSPPSRSSSG---EGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YVCLANKACPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MPCVQAQY ---SPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISTFVEGYSSNYELKPSCVYQMQ---RPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -ALWDEALPSAPGCIAPGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LRAWTEQLPKASG------PPQ-----PPAFFSFSPPTGPSPS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---LAQSPLKLFPSQATHQLG----BGESYSM-----PTAFPGL----APTSPHLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PSQPSPPSPPICMMNALVRALTDSTP--RDLDYSRYCPTDQAAAG-TDAEHVQQFYNLLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ASIDVSRSWAEKI PGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ASCLKEHVA-AVAGEPQPASCLSRLLGKLPELRTLCTQGLQRIFYLKLEDLVPPPFIIDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TSSLKDHQSKGQALEPTE----SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSLIDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLOCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PSIP-PASSPEDEVLPSTSMYFKQSPPS--TPTTPAF-PPQAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41.0%; Score 1367; DB 2;
47.5%; Pred. No. 5.7e-68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 47.5'
Matches 317; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IFMDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
```

577

ge

D

```
oA transforming protein homolog, transcription regulation; zinc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-53 <MILA.
A; Residues: 1-53 <MILA.
A; Experimental source: cell line PC12
A; Experimental source: cell line PC12
A; Experimental source: cell line PC12
A; Experimental source: cell line PC12
Mol. Cell. Biol. 9, 4213-4219, 1989
A; Title: The NGFI B gene, a transcriptionally inducible member of the steroid receptor
A; Reference number: A34097; MUD: 90066426; PMID: 2479823
A; Accession: A34097
A; Residues preliminary
A; Molecule type: DNA
A; Molecule type: DNA
A; Residues: 255-260; 298-303; 349-354; 417-422; 476-481 <WAT>
C; Comment: This protein is proposed to be a ligand-dependent transcriptional activator
                                                                                                                                                                                                                                                                                                                                                                                                                                             to the glucocorticoid receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ||:
ESY-----SVPAAFPGLAPTSPNCDTSGIL-DAP-VTSTKARSGSSGGSEGRCAVC 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------SSSSSATSPASASFKFEDFQVYGCYPGTLSGPLDETLSSSGSDYYGSP 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              101 CSAPSPPTPNFQPSQLSPWDGSFGHFSPSQTYEGLRVWTEQLPKASG------PPP-- 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAAL 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ESHPYGLPLAKRAAPLAFPPLGLT-PSPTASSLLGESPSLPSPPSRSSSSG--EGTCAVC 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALIDSTPR--D 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LDYSRYCPTDOAAAG-TDAEHVQOFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIES 472
                                                                                                                                                                                                                                     nerve growth factor-inducible protein B - rat
NyAlternate names: glucocorticoid receptor homolog
C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Accession: JQ0623; A34097
R;Milbrandt, J.
Neuron 1, 183-188, 1988
A;Title: Nerve growth factor induces a gene homologous to the glucocorticoic
A;Reference number: JQ0623; MUID:90166506; PMID:3272167
A;Rccession: JQ0623.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     519 HGLQDPRRVEELQNRIASCLKEHMAT-VAGDPQPASCLSRLLGKLPELRTLCTQGLQRIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDLGSTEITATATTSLPSISTFVE-GYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDLASPETAPTAPATLPSFSTFMDGGYTGEFD---TFLYQLPGTAQPCSSASSTS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HHHHHHHHHHQQQHQQPSIPPASS-------PEDEVLPSISMYFKQSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A,Gene: NGF1-B
C;Superfamily: probable hormone receptor N10, nuclear; erbA transforming
C;Keywords: DNA binding; growth factor receptor; nucleus; transcription r
F;230-479/Domain: erbA transforming protein homology <ERBA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels 126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38.3%; Score 1277; DB 2; I
46.6%; Pred. No. 4.7e-63;
tive 70; Mismatches 145;
                                                                                                            601
                                                                                     CLKLEDLVPPPPIVDKIFMDTLSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             140 PSTPT--TPAFPPOAGALWD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 297; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   347
                                                                                                            578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  414
                                                         603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
  유
                                                      ઠે
                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
              C. SACCESSION: SUG9513, A313144

R. SYSSECK, R. P.; Macdonald-Bravo, H.; Mattei, M.G.; Ruppert, S.; Bravo, R.

EMBO J. 8, 3327-335, 1989

A,Title: Structure, mapping and expression of a growth factor inducible gene encoding a A; Reference number: 806953 MUD: 9059925; PMID: 2555161

A; Rocession: 806953

A; Molecule type: DNA

A; Residues: 1-601 RYS>

A; Cross-references: UMIPROT: P12813; EMBL: X16995; NID: 953312; PIDN: CAA34862.1; PID: 953313

A; Molecule type: DNA

A; Residues: 1-601 RYS>

A; Cross-references: UMIPROT: P12813; EMBL: X16995; NID: 953312; PIDN: CAA34862.1; PID: 953313

R; Hazel, T. G.; Nathans, D.; Lau, L.F.

Proc. Natl. Acad. Scil. U.S.A.

B; Hazel, T. G.; Nathans, D.; Lau, L.F.

A; Reference number: A94211; MUD: 89042200; PMID: 3186734

A; Reference number: A30059

A; Molecule type: MRNA

A; Residues: 1-601 cHAZ>

B; Residues: 1-601 cHAZ>

A; Residues: 1-601 cHAZ>

B; Residues: 1-601 cHAZ>

A; Residues: 1-601 cHAZ>

B; Residues: 1-601 cHAZ>

A; Re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                288 EGCKGFFKRTVQKSAKYICLANKDCPVDKRRRNRCQFCRFQKCLAVGMVKEVVRTDSLKG 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HGLKEPKRVEELCNKITSSLKDHQSKGQALEPTE----SKVLGALVELRKICTLGLQRIF 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56 PSISTFVEGYSSNYELKPSCVYQM---QRPLIKVEEGRAPSYHHHHHHHHHHHHHHHQQQH 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        --EALPSAPGCIAPGPLLDPPMKAVPTVAGARFPLFH 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FKPSPPHPPAPSPAGGHHLGYDPTAAALSLPLGAAAAGSQAAALESHPYGLPLAKRAA 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAAFPGLAPTSPNRDTSGIL-DAP-VTSTKSRSGASGGSEGRCAVCGDNASCQHYGVRTC 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTP--RDLDYSRYCPTDQAAA 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 348 RRGRLPSKPKQP-----PDASPTNLLTSLIRAHLDSGPSTAKLDYSKFQELVLPRF 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        428 G-TDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRS 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  487 NTAEDKEVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITER 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      113 QQPSIPPASS------PEDEVLPSTSMYFKQSPPS--TPTTPAFPPQ 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------RDHLTGDPLALEFGKPTMDLASPETAPAAPALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FSFSPPTGPSPSLAQSSLKLFPPPATHQLG-------EGESYSM-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KPGEGKLIFCSGLVLHQLQCARGFGDWIDNILAFSRSLHSLGVDVPAFACLSALVLITDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MPCVQAQY-----SPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PLAFPPLGLT-PSPTASSLLGESPSLPSPPSRSSSSG--EGTCAVCGDNAACQHYGVRTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1; Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         152 QLSPWDGSFGHFSPSQTYEGLWAWTEQLPKA----SSGP---PP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           39.5%; Score 1316.5; DB 1;
44.9%; Pred. No. 3.4e-65;
iive 78; Mismatches 158;
     Accession: S06953; A30059; A31344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MPCIOAOYGTPATSPGP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 44.9<sup>3</sup>
Matches 307; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   152 AGALWD----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

139

g

δ g

셤 ઠે

```
Universe process. Blitwoord (silkworm)
CiSpecies: Bombyx mory (silkworm)
CiSpecies: Bombyx mory (silkworm)
CiDate: 13-Jan-1996 #sequence_revision 01-Mar-1996 #text_change 16-Aug-2004
CiAccession: SSA205
CiAccession: SA205
Submitted to the EMBL Data Library, June 1995
Air Description: DHR18s: a new partner for USP suggests an unexpected role for NGFI-B type
Air Reference number: SSA205
Air Reference number: SSA205
Air Reference number: SSA205
Air Residue: preliminary
Air Residue: 1-360 csUT>
Air Cross-references: UNIPROT:P49870; EMBL:X89247; NID:g929002; PIDN:CAA61535.1; PID:g929
CiSuperfamily: erbA transforming protein.homology
CiReywords: Zinc finger
F;24-276/Domain: erbA transforming protein homology <ERBA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nuclear steroid hormone receptor NHR-6 - Caenorhabditis elegans
N;Alternate names: protein C48D5.1; steroid hormone receptor family member CNR8
C;Species: Caenorhabditis elegans
C;Date: 03.Mar-2000 #sequence_revision 03-Mar-2000 #text_change 09-Jul-2004
C;Accession: T40348; T20039; T45068
R;Sluder, A.E.; Mathews, S.W.; Hough, D.; Yin, V.P.; Maina, C.V.
Genome Res. 9, 103-120, 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPS 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRL 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SSLLGESPSLPSPPSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            62 CLAEKSCPVDKRRRNRCQFCWFQKCLAVGMVKEVVRTDSLKGRRGRLPSKPKCP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SLKDHQSKG----QALEPTESKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLF
                                                                            517 IKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDH---QSKG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         296 CLRGHMPGGGGSSSGAAPLQ-RVLGALPELRSLSVKASQRIFYLKLEDLVPAPPLIENMF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SSSPGVAPADNTGPRAAPSSPSQLCAVCGDTAACQHYGVRTCEGCKGFFKRTVQKGSKYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QPSPPSPPICMMNALVRALTDSTP--RDLDYSRYC-PTDQAAAGTDAEHVQQFYNLLTAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Score 1023; DB 2; Length 360;
; Pred. No. 2.6e-49;
47; Mismatches 95; Indels 14;
                                                                                                                                                                                                 574 QALEPTESKVIGALVELRKICTLGLORIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                               protein - silkworm (fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 57.4%;
Matches 210; Conservative 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RASLPF 360
                                                                                                                                                                                                                        499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                               DHR38
                                                                                                               g
                                                                         à
                                                                                                                                                                       ઠે
                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            role for NGFI-B type
                                                                                                                                                                                                                                                                                                                                                                              DHRAB protein - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Species: Drosophila melanogaster
C;Species: 13-5an-1996 #sequence_revision 19-Apr-1996 #text_change 16-Aug-2004
C;Accession: S58238
R;Sutherland, J.; Kozlova, T.; Tzertzinis, G.; Kafatos, F.C.
submitted to the EMBL Data Library, June 1995
A;Beference number: S58205
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Accession: S58238
A;Genetics: Type: mRNA
A;Residues: 1-551 <SUT>
A;Cross-references: EMBL:X89246; NID:g929561; PIDN:CAA61534.1; PID:g929562
C;Genetics: A;Gene: FlyBase:FBgn0014859
C;Guetics: and transforming protein homology
C;Keywords: Zinc finger
F;220-467/Domain: erbA transforming protein homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18;
                                                  ALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTE----SKVLGALV 588
                                                                                                                                           115 NGERY------SLPTFPTISELAAA--TAAVEA 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            216 QAPSQ------LCAVCGDTAACQHYGVRTCEGCKGFFKRTVQKGSKYVCLADKNCPVDK 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             269 RRRNRCQFCRFQKCLVVGMVKEVVRTDSLKGRRGRLPSKPKSP------QESPPSPPISL 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47 ITATATTSLPSISTFVEGYSSNYELK----PSCVYOMORPLIKVEEGRAPSYHHHHHHH 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      103 HHHHHHQQQHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPS 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APGCIAPGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALS 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSTCM 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MNALVRALTDSTPRD--LDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIP 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDS 516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                      AFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LPLGAAAAAGSQAAAL----ESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPPSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       136;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 PCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYT-KLTMDLGSTE----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 551;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 35.0%; Score 1167; DB 2; Best Local Similarity 42.1%; Pred. No. 5e-57; Matches 275; Conservative 80; Mismatches 162;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  140 AAAATVGGP-----PPVRRASLPV------
                                                                                                                                                                                                                                               526 ELRTLCTQGLQRIFCLKLEDLVPPPPIVDKIFMDTLSF
                                                                                                                                                                                                                   BLRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                     533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  457
```

ઠે 임 ઠે 8 ઠે a ð a ઠે g ઠે g δ qq ઠ g

```
ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                       ద
                                                                                                                                                             ò
                                                                                                                                                                                                        g
                                                                  ò
                                                                                   A; Scarus; preliminary; Liamslated Irom GD/EMBL/DDDD
A; Scarus; preliminary; Liamslated Irom GD/EMBL/DDDD
A; Residues: 1-619 -65UD
A; Residues: 1-619 -65UD
A; Residues: 1-619 -65UD
A; Residues: 1-619 -65UD
A; Reference number: 219215
A; Accession: T2003
A; Reference number: 219215
A; Accession: T2003
A; Residues: 58-619 -64UD
A; Reference number: 20026
A; Residues: 58-619 -64UD
A; Residues: 58-619 -64UD
A; Residues: 58-619 -64UD
A; Residues: 58-619 -64UD
A; Residues: 58-619 -64UD
A; Residues: 58-619 -64UD
A; Residues: 58-619 -64UD
A; Residues: 58-619 -64UD
A; Rostrouch, Z.; Kostrouchova, M.; Rall, J.E.
Proc. Natl. Acad. Sci. U.S.A. 92, 156-159, 1995
A; Title: Steroid/thyroid hormone receptor genes in Caenorhabditis elegans.
A; Reference number: A55595; MUID: 95116514; PMID: 7816808
A; Residues: 157-187, Tr', 189-619 -6RES>
A; Residues: 157-187, Tr', 189-619 -6RES>
A; Residues: 157-187, Tr', 189-619 -6RES>
A; Cross-references: EMBL: Ul3076; NID: 9538372; PIDN: AA966984.1; PID: 9538373
C; Genetics:
A; Map position: 3
A; Introns: 71/1; 98/3; 175/2; 240/2; 337/1; 389/3; 510/1; 550/3
C; Superfamily: Caenorhabditis elegans nuclear steroid hormone receptor NHR-6; erbA tranfe C; Ksywords: steroid hormone receptor; zinc finger
C; Superfamily: Caenorhabditis elegans nuclear steroid hormone receptor; zinc finger
C; Superfamily: Caenorhabditis elegans nuclear steroid hormone receptor; zinc finger
C; Superfamily: Caenorhabditis elegans nuclear steroid hormone receptor; zinc finger
C; Superfamily: Caenorhabditis elegans nuclear steroid hormone receptor; zinc finger
Title: The nuclear receptor superfamily has undergone extensive proliferation and dive;
Reference number: 222443; MUID:99148134; PMID:10022975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            64 GYSSNYELKPSCVY-----QMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSI 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----FHSLVETSDOVNTV 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAP--GPLLDP 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PMKA------VPTVAGARFPLF---HFKPSPPHPPAPSPAGGHHLGYDPTAAALSL 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----SLPSP----PSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAK 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YTCAGNKTCPIDKRYRSRCQYCRYQKCLEVGMVKEIVRHGSLSGRRGRLSSKTK--LARS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EDÓPSPPLPLLALMG---KAIEDHTNMTVVRQFMQPFDETIA------LRILHGEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DVSRSWAEKI PGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HATKKLLMAMPQISEIQPADFQILLSRSFFAIMAIRVANRCGNSTDTIMFESG----ELF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLRGFGE-----WLDSIKDFSLNLQSLNLDIQALACLSALSMI---TERH--GLKEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PLGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 VQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSISTFVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PSOPSPPSPPICMMNALVRALTDSTPRDLDYSRYCPTDOAAAGTDAEHVQOFYNLLTASI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ouery Match 16.6%; Score 554.5; DB 1; Length 619; Best Local Similarity 28.4%; Pred. No. 2.4e-23; Matches 190; Conservative 79; Mismatches 249; Indels 151.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        151 TMOAFQMPHNDLFLATAAPHYNPFALSNDFMPNPLMPSFTSPFYPQH-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11 LODOFSNCSPAS--VDSSYSSCSSVEDEIETYTRLVRN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57 EMSKNSSCSSSFDYGEFGPSSSSRKGSKTTDADLDSL-
                                                           Status: preliminary; translated from GB/EMBL/DDBJ:Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
CiAccession: G88408
Stanonymous, The C. elegans Sequencing Consortium.
Science 282, 2012-2018, 1998
A;Title: Genome sequence of the nematode C. elegans: a platform for investigating biolog A;Title: Genome sequence of the nematode C. elegans: a platform for investigating biolog A;Title: Genome sequence of the nematode C. elegans a platform for investigating biolog A;Title: Genome wustl.edu/gsc/C elegans and www sanger.ac.uk/Projects/C_ele A;Note: see websites genome.wustl.edu/gsc/C elegans and www sanger.ac.uk/Projects/C_ele A;Note: published errata appeared in Science 283, 35, 1999; Science 283, 2103, 1999; and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Map position: 3
C;Superfamily: Caenorhabditis elegans nuclear steroid hormone receptor NHR-6; erbA tranf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :| :| | | | | : : | | : : | | 397 IMPESG----ELFSLNAFPACFQQIIRFMVDKARTFS---SLVDWEPQAFAAFIALQFLA 449
463 SLNAFPACFQQIIRFMVDKARTFS---SLVDWEPQAFAAFIALQFLAGNTEHNVLGLTNK 519
                                                                                612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRG 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RLPSKPKSPLOQEPSOPSPPSPPICMMNALVRALTDSTPRDLDYSRYCPTDOAAAGTDAE 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDK 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FVFCNGLVLHRLQCLRGFGE------WLDSIKDFSLNLQSLNLDIQALACLSALSMI- 543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           --TERH--GLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQ 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Accession: G88408
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-562 <STO>
A;Cross-references: GB:chr_III; PIDN:CAA85271.1; PID:g3875028; GSPDB:GN00021
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                   protein nhr-6 [imported] - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 17-May-2002
                                                                                                                 |::: | ::||| | | | ::| | PLVDQVQSTIINALKDHCSGSQ----NKLAKIVRLTQEFDVFHALGLQAL-----DILYP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  105 HHHHQQQHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HSLVETSDQVNTVPKPTKTEVESIPEE---FEOKPSSS------SHRLPSEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCIAP.-GPLLDPPMKA-----VPTVAGARFPLF---HFKPSPPHPPAPSPAGGHH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LGYDPTAAAALSLPLGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LGESP-----SLPSP----PSRSSSSGEGTCAVCGDNAACQHYGVRTCEGC
                                                                              553 KRVBELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQRIFYLKLEDLVSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16.6%; Score 554; DB 2; L
llarity 30.1%; Pred. No. 2.3e-23;
Conservative 72; Mismatches 199;
                                                                                                                                                                                                                          : : |:
SHQLPEEFM 579
                                                                                                                                                                                            PSIIDKLFL 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Sim
Matches 169;
                                                                                                                                                                                            613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
```

```
Job time : 44 secs
                                                                                                                                                                                                                           retinoic acid receptor beta-1 - chicken
C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Species: Gallus gallus (chicken)
C;Accession: S13512; S17073
R;Padanilam, B.J.; Mcleod, L.B.; Suzuki, H.; Solursh, M.
Nucleic Acids Res. 19, 395, 1991
A;Title: Nucleotide sequence of an isoform of chicken retinoic acid binding protein-beta
A;Reference number: S13512; MUID:91195065; PMID:1849630
A;Reference number: S13512; MUID:91195065; PMID:1849630
A;Reference number: S13512; MUID:91195065; PMID:1849630
A;Reference number: S13512; MUID:91195065; PMID:1849630
A;Coss-references: UNIPROT:P22448; EMBL:X56674; NID:g63785; PIDN:Cha39997.1; PID:g63786
A;Notes: the nucleotide sequence was submitted to the EMBL Data Library, November 1990
B;Nohno, T; Muto, K; NOj; S; Saito, T; Taniguchi, S.
B;Ochim. Biophys. Acta 1089, 273-275, 1991
A;Title: Isoforms of retinoic acid receptor beta expressed in the chicken embryo.
A;Reference number: S16243; MUID:91274365; PMID:1647216
A;Reference number: S16243; MUID:91274365; PMID:1647216
A;Rocession: S17073
A;Molecule type: mRNA
A;Residues: 1-29, P; 31-80 c,NOH>
C;Superfamily: retinoic acid receptor alpha; erbA transforming protein homology
C;Keywords: alternative splicing; DNA binding; nucleus; transcription regulation; zinc finger
F;88-108/Region: zinc finger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               199 ----FPSLCQLGKYTINSSADHRVRLDLGLWDKFSELATKCIIKIVEFAKRLPGFTSLTI 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180 VPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALE 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             523 NLOSLNLDIQALACLSALSMIT-ERHGLKEPKRVEELCNKITSSLKDHQSKGQALEP-TE 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240 SHPYGLPLAKRAAPLAFPPLGL-TPSP-----TASSLLGESPSLPSPPSRSSSGEGT 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       292 CAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQK 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                352 CLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTP 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         412 RDLDYSRYCPTDQAAAGTDAEH------VQQFYNLLTASIDVSRSWAEKIPGFTDLPK 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               464 EDQTLLIBSAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLR-GFGEWLDSIKDFSL 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              315 QLLPLEMDDTETGLLSAICLICGDRQDLEEPMKVDKLQEPLLEALKIYIRKRRPHKF 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 VPAVNG---HWTHY-PPAPYPILFAPVIG------GLSLP-----SLHGLQ 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           46 SHP-----PTSGCSTPSPATVETQSTSSEELVPSPPSPLPPPRVYK----P 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 16.3%; Score 543; DB 2; Length 455; Best Local Similarity 32.5%; Pred. No. 7.4e-23; Matches 149; Conservative 65; Mismatches 171; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 581 SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKL 619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : |: | : |:
507 AL----DILYPSHOLPEEFM 522
                            600 RIFYLKLEDLVSPPSIIDKLFL 621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                            ઠે
```

Search completed: March 12, 2005, 17:52:00

THIS PAGE BLANK (USPTO)

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

OM protein - protein search, using sw model

Run on:

March 12, 2005, 17:40:16; Search time 176 Seconds (without alignments) 1821.373 Million cell updates/sec

US-10-608-863-2 3337 MPCVQAQXSPSPPGSSYAAQ......EDLVSPPSIIDKLFLDTLPF 626

Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1612378 segs, 512079187 residues Searched:

Total number of hits satisfying chosen parameters:

1612378

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. UniProt\_03:\*
1: uniprot\_sprot:\*
2: uniprot\_trembl:\*

STEMMANTES

															•																	
	Description	O92570 homo sapien	BUB	P51179 rattus norv	Oggzbe mus musculu	097727 sus scrofa		Q06219 mus musculu	Q07917 rattus norv	Q98tq3 oryzias lat		homon	canie	homod	рошо		homo					P12813 mus musculu	Q6gmg3 brachydanio	Q7q4c6 anopheles g	Q9u4ll aedes aegyp	_	-	Q9rlw4 mus musculu		9 caenor	P22448 gallus gall	Q9w6b3 coturnix co
SUMMARIES	ID	NR43 HUMAN	097726	NR43 RAT	NR43 MOUSE	097727	NR42 HUMAN	NR42_MOUSE	NR42_RAT	Q98T <u>Q</u> 3	Фернов	Q6NXU0	NR41_CANFA	Q8N3V2	NR41_HUMAN	Q6IBU8	Q6 ZMM6	Q6INY4	NR42_XENLA	Q7T0V3	NR41_RAT	NR41_MOUSE	Q6GMG3	Q7Q4C6	Q9U4L1	HR38 DROME	Q8INÜ7	Q9R1W4	HR38_BOMMO		RRB_CHICK	RRB_COTJA
	DB	-	~	-	н	7	-	н	н	7	7	7	ч	~	7	~	~	7	٦	~	ч	-	~	7	~	-	7	7	-1	-	-	-
	Length	626	643	628	627	446	598	598	598	009	586	535	598	598	598	598	652	577	577	577	597	601	574	808	545	1073	556	392	360	619	455	455
di	ᅩᄯ	99.9	93.9				٠		52.0				41.1	41.0		40.9		40.5			39.6	39.5	37.6	36.5	ŝ	35.7	ď.	Ξ.	30.7	16.6	16.3	16.3
	Score	3333	3133.5	3074	3054.5	2099.5	1751	1746	1736	1677	1588	1572	1371	1368	1367	1364	1353	1351.5	1350.5	1350.5	1322.5	1316.5	1254	1219.5	1197.5	1190.5	1168.5	1057.5	1023	554.5	545	545
	Result No.		7	е	4	ß	9	7	ω	σ	10	11	12	13	14	15		17	18		20	21	22	23	24	25	26	27	28	29	30	31

Q6aw80 homo sapien P22605 mus musculu	P28702 homo sapien P11416 mus musculu P97513 mus spretus	P10826 homo sapien P10276 homo sapien Q95153 mustela vis	Q6p2h5 homo sapien Q6in48 homo sapien Q90966 gallus gall	P28704 mus musculu P18514 notophthalm	Q6mgb3 rattus norv
Q6AW80 RRB MOUSE	RXKB HUMAN RRA MOUSE P97513	RRB HUMAN RRA_HUMAN Q95 <u>L</u> 53	Q6P2H5 Q6IN4B RRA CHICK	RXRB MOUSE RRA NOTVI	Q6MGB3
24	- <del>-</del> - 0	2	224		7
156	533 462 562	455 462 525	590 600 460	520 458	451
16.2	15.9	15.9 15.9 15.9	15.8 15.8 15.7	15.6 15.6	15.6
541	531.5 531.5	531 530.5 529.5	527 527 523.5	521.5 520.5	519.5
332	2 E E E 4 E E	37 39	4 4 4 2 1 2	443	45

## ALIGNMENTS

N

120

9

Gaps

240

```
61 FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHHHHQQQHQQPSIPPA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SSPEDEVLPSTSMYPKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPPMKAV 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 HPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLFSPPSRSSSSGEGTCAVCGDNAA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKE 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNRCQYCRFGKCLSVGMVKB 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSAL 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR 600
                                                                                                                                                                                                                                                                                                                                                          1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                     FVEGYSSNYELKPSCVYQMQRPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQPSIPPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQAAALEG
                                                                                                                                                                                                                                                                                                      1 MPCVQAQYSPSPBGSSYAAQTYSSEXTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLDYSRYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICTLGLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIDQAAAGIDAEHVQQFYNLLIASIDVSRSWAEKIPGFIDLPKEDQILLIESAFLELFVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Badimon L.;
                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                 626;
                                                                                                                                                                                                                                      1; Indels
                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. Castello A., Martinez-Gonzalez J., Be cases-Langhoff C., Castello B., Martinez-Gonzalez J., Be Submitted (CGT-1998) to the EMBL/GenBank/DDBJ databases :- SUBCELLULAR LOCATION: Nuclear (By similarity).
G -> S (in Ref. 3 and 4).

K -> R (in Ref. 1).

T -> N (in Ref. 1).

G -> V (in Ref. 1).

40D18DA8FEF991EC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Neuron-derived orphan receptor-1 alfa.
                                                                                                                                                                              Score 3333; DB 1;
Pred. No. 1.4e-168;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      643 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601 IFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
   240 G
454 K
579 T
585 G
68199 MW;
                                                                                                                                                                                 99.9%;
                                                                                                                                                                        Query Match
Best Local Similarity 99.8
Matches 625, Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                       626 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sus scrofa (Pig)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Name=NOR-1;
   CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             097726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               097726;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 2
097726
AC 09773
AC 09777
AC 09777
DT 01-M
DT 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 01-M
DD 
      FFFS
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bloinformatics and the EMBL outstation. The Buropean Bloinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                Isold=092570-2; Sequence=VSP_003712, VSP_003713; TISSUE SPECIFICITY: High expression of isoform alpha in skeletal muscle. High expression of isoform beta in skeletal muscle and low expression in fetal brain and placenta.

DISEASE: Involved in Ewing's sarcoma through chromosomal translocations t(9;22) (q22-31;q11-12) which involve EWS and NR4A3. DISEASE: Involved in a form of extraskeletal myxoid chondrosarcomas (EWC) through a chromosomal translocation t(9;17) (q22;q11) that involves TAF2N and NR4A3. SIMILARITY: Belongs to the nuclear hormone receptor family. NR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YCPTDQAAAGTDAEHVQQFYNLLTA -> VSFMISCFQMND QGLYLWLLVTRVD (in isoform Beta). Frid-VSP 003712. Missing (in isoform Beta). /Frid-VSP_003713.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   subfamily.
-!- CAUTION: Ref.2 sequence differs from that shown due to frameshifts
in positions 4 and 20.
                        MEDLINE=98241504; PubMed=9573341; DOI=10.1016/S0378-1119(98)00095-X; Ohkura N., Ito M., Tsukada T., Sasaki K., Yamaguchi K., Miki K.; "Alternative splicing generates isoforms of human neuron-derived orphan receptor-1 (NOR-1) mRNA."; Gene 211.79-85(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nuclear protein; Proto-oncogene; Receptor; Transcription regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R GO; GO: 000548; F: binding; TAS.

R GO; GO: 0005488; F: binding; TAS.

R GO; GO: 0004887; F: thyroid hormone receptor activity; TAS.

GO; GO: 0004887; F: thyroid hormone receptor activity; TAS.

R InterPro; IPR001723; Stdhrmn receptor.

R InterPro; IPR001946; Str_ncl_receptor.

R InterPro; IPR001649; Str_ncl_receptor.

R InterPro; IPR001649; Str_ncl_receptor.

R Pfam; PF00105; Zf-C4; I.

R Pfam; PF00105; Zf-C4; I.

R PRIMTS; PR00199; STROIDFINGER.

R PRIMTS; PR00047; STROIDFINGER.

R PRODOM; STROIDFINGER.

R PRODOM; PROD00035; Znf_C48teroid; I.

R PROSITE; PS00011; NUCLEAR RECEPTOR; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C4-type.
C4-type.
Ligand-binding (Potential).
Poly-His.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nuclear receptor-type.
                                                                                                                                                                     -1. FUNCTION: Binds to the B1A response-element.
-1. SUBCELLULAR LOCATION: Nuclear (Potential).
-1. ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                               IsoId=Q92570-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; D78579; BAA11419.1; -.
EMBL; U12767; AABO2581.1; ALT_FRAME.
EMBL; S81243; AAB3606.1; ALT_INIT.
EMBL; X89894; CAA61984.1; -.
EMBL; D85241; BAA28608.1; -.
EMBL; D85242; BAA31221.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRANSFAC; T04750; -.
TRANSFAC; T04753; -.
Genew; HGNC:7982; NR4A3.
MIM; 600542; -.
   TISSUE=Skeletal muscle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            312
352
490
108
287
443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  626
                                                                                                                                                                                                                                                                                                Name=Alpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Zinc-finger.
DNA BIND
ZN FING
ZN FING
BOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
```

480

540

900

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=1; Synonyms=NOR-1;
IsoId=P51179-1; Sequence=Displayed;
Name=2; Synonyms=NOR-2;
IsoId=P51179-2; Sequence=VSP_010085, VSP_010086;
-1-TISSUG SPRECIFICITY: Expressed at high levels in cultured apoptotic neuronal cells and fetal brain, and at low level in adult brain.
-1-SIMILARITY: Belongs to the nuclear hormone receptor family. NR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pena de Ortiz S., Cannon M.M., Jamieson G.A. Jr.;
"Expression of nuclear hormone receptors within the rat hippocampus: identification of novel orphan receptors";
Brain Res. Mol. Brain Res. 23:278-283(1994).
-!- FUNCTION: Binds to the B1A response-element.
-!- SUBCELULAR LOCATION: Nuclear (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR000536; Hrmon_recept_lig.
InterPro; IPR001723; Stdhrmn_receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 318-345 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; D38530; BAA07535.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; X86003; CAA59993.1; -. EMBL; L19343; AAB46395.1; -. PIR; JC2493; JC2493. PIR; S66671; S66671.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSSP; P43354; 10VL.
TRANSFAC; T02768; -.
TRANSFAC; T04752; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Hippocampus;
PubMed=7914660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RGD; 61882; Nr4a3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               subfamily.
                                                        RESULT 3
NR43_RAT
                                                                                                                   Э,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181 PGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALGLPLGAA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 AAAAAAAGSQAAALEGHPYGLPLAKRAAALAFSPLGLTTSPTTSSLLGESPSLPSPPNR 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPS9PSPPVCMMNALV 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 PPQQQQPSIPPPSGPEDEVLPSTSMYFKQSPPSTPTTPVFPQQAGALWEDALPSAGGCIA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 FMEGYSSNYELKPSCLYQMQPSGPRPLIKMEEGRAHGYННННННННННННННННОQQQQQQQP 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    --QHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIA 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLG-- 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALV 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLN 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RALTDSTPRDLDYSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOSINIDIOALACLSALSMITERHGLKEPKRVEELCNKITSSLKEHOSKGQALEPTEPKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MPCVQAQYSPSPPGSSYAAQTYGSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSFST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FVEGYSSNYELKPSCVYOMO----RPLIKVEEGRAPSYHHHHHHHHHHHHHQQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ---AAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17;
-1- SIMILARITY: Belongs to the nuclear hormone receptor family. EMBL; AJ011767; CAA09763.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2; Length 643;
                                                  GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003707; F:steroid hormone receptor activity; IEA.
GO; GO:0003700; F:transcription factor activity; IEA.
GO; GO:0006355; P:regulation of transcription, DNA-dependent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match 93.9%; Score 3133.5; DB Best Local Similarity 92.4%; Pred. No. 5e-158; Matches 594; Conservative 10; Mismatches 22
                                                                                                                             InterPro; IPR000336; Hrmon recept Ing.
InterPro; IPR003072; NOR1 receptor:
InterPro; IPR003070; Nucorph_receptor:
InterPro; IPR003070; Nucorph_receptor.
InterPro; IPR008946; Str_ncl_receptor.
InterPro; IPR001628; Str_ncl_receptor.
IPR0104; Hormone_receptor.
Pfam; PF00104; Hormone_recept; 1.
                                                                                                                                                                                                                                                                                       PRINTS; PRO1286; NORNUCRECPTR.
PRINTS; PRO1284; NUCLEARECPTR.
PRINTS; PRO0398; STRDHORMONER.
PRINTS; PRO0047; STROIDFINGER.
PRINTS; PRO0047; ZAF_C48teroid; 1.
SMART; SM00430; HOLI; 1.
SMART; SM00399; ZAF_C4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        524
```

g

엄

ઠે

g

ò

셤

ઠે

g

ò

a

ò

셤 ò a ò

ò

셤

8

8

```
[2]
SEQUENCE FROM N.A. (ISOFORM 2).
STRAIN-Spraque-Dawley, TISSUE=Brain;
STRAIN-Spraque-Dawley, TISSUE=Brain;
MEDLINE-96000221; PubMed. Or556683; DOI=10.1016/0014-5793(95)00998-O;
Petropoulos I., Part D., Ochoa A., Zakin M.M., Lamas E.;
"NOR-2 (neuron-derived orphan receptor), a brain zinc finger protein, is highly induced during liver regeneration.";
FEBS Lett. 372:273-278(1995).
                                                                                                                                                                                                                                                                                                                                                                                (Neuron-derived orphan receptor 1/2).

Name=Nr4a3; Synonyms=Nor1;

Rattus norvegicus (Rat).

Bukaryota; Metazoa; Chodata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                      receptor NOR-1/NOR-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=Wistar; TISSUE=Brain; MEDLINE=95110348; PubMed=7811288; Ohkura N., Hijikuro M., Yamanoto A., Miki K.; Molecular cloning of a novel thyroid/steroid receptor superfamily gene from cultured rat neuronal cells."; Biochem. Biophys. Res. Commun. 205:1959-1965(1994).
601 LRALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF 643
                                                                                                                                                                                                                                           01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
25-JM-2005 (Rel. 46, Last annotation update)
Orphan nuclear receptor NR4A3 (Nuclear hormone
                                                                                                                                                                             Ź
                                                                                                                                                                             628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10116;
                                                                                                                                                                             NR43 RAT (
```

```
430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA BIND
ZN FING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZN FING
ZN FING
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                               +
                                  RESULT
NR43 MO
                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             477
                                                                                                                                                                                                                                                                                                                                                                                                          116
                                                                                                                                                                                                                                                                                                                                                                                                                      235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      597
                                                                                                                                                                                                                                                                                                                                                                                                                                                      117 IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGEGTCAVC 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     238 AALEGHPYGLPLAKRTATLTFPPLGLTASPTASSLLGESPSLPSPPNRSSSSGEGTCAVC 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          298 GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA 535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT 595
                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                         1 MPCVQAQXSPSPPGSTXATQTYGSEYTTEIMNPDYAKLIMDLGSTGIMATATTTSLPSFST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDATPRDLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YSRYCPTDQATAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHQQQHQQPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                179 MKAVPPMAAARFPIF-FKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YSRYCPTDQAAAGTDAEHVQQFYNLLITASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                   YCPTDQATAG -> VSSVNRFEWF (in isoform 2)
/FIId=VSP 010085.
Missing (In isoform 2).
/FIId=VSP 010086.
P -> Q (in Ref. 2).
A -> P (in Ref. 2).
                                                                                                                                                                                                                                                                                                                                       ..
                                       PRINTS, PRO0039, STEPDHORMONER.
PRINTS, PRO0039, STROIDFINGER.
PRODOM, PD000035; Znf_C4steroid; 1.
ProDom, PD000035; Znf_C4steroid; 1.
SMART; SM00399; Znf_C4; 1.
PROSITE; PS00031; NUCLEAR RECEPTOR; 1.
Alternative splicing; DNA-binding; Nuclear protein; Receptor; Transcription regulation; Zinc-finger.
                                                                                                                                                                                                                                                                                                              Length 628;
                                                                                                                                                  C4-type.
C4-type.
Ligand-binding (Potential).
Poly-His.
Poly-Cln.
                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                         9AC285D9A65226D9 CRC64;
                                                                                                                                       Nuclear receptor-type
                                                                                                                                                                                                                                                                                                             Query Match 92.1%; Score 3074; DB 1; 18est Local Similarity 92.2%; Pred. No. 6.9e-155; Matches 582; Conservative 12; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF 626
InterPro; IPR008946; Str_ncl_receptor.
InterPro; IPR001628; Znf_C4sTeroid.
Pfam; PF00104; Hormone_recep; 1.
                                                                                                                                                                                                            Poly-Ser
                                                                                                                                                                                                                                                                               18 P
68564 MW;
            InterPro; IPR001628; Znf
Pfam; PF00104; Hormone
Pfam; PF00105; zf-C4; 1
                                                                                                                                                     314
354
112
116
289
                                                                                                                                                                                                                      430
                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                            628
                                                                                                                                                                                                                                                                  13
18
628 AA;
                                                                                                                                                                                                                                            431
                                                                                                                                                                                                                                                                 CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             969
                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      538
                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        478
                                                                                                                                      DNA BIND
ZN FING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        356
                                                                                                                                                                                                                      VARSPLIC
                                                                                                                                                                                                                                            VARSPLIC
                                                                                                                                                            ZN_FING
                                                                                                                                                                                               DOMAIN
DOMAIN
                                                                                                                                                                                    DOMAIN
                                                                                                                                                                        DOMAIN
```

g

셤

ò

8 8

ò

임

à

g

ð

셤

ò

8 6

셤

ò

8 8

셤

ò

ઠે

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the BMBL outstation the European Bioinformatics Institute. There are no restrictions on its was by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb.sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YCPTDQATAG -> VSSMNAFEPL (in isoform 2) /FIId=VSP_010083. Missing (in isoform 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expression in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  brain. SIMILARITY: Belongs to the nuclear hormone receptor family. \ensuremath{\mathsf{NR4}}
                                                                                                                                                                                                                                                                                  Name=Nr4a3; Synonyms=Tec;
Name=Nr4a3; Synonyms=Tec;
Naus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORMS 1 AND 2). WEDLINES20163713; Pubmed=10701778; DOI=10.1089/104454900314636; Maltais A., Labelle Y.; "Structure and expression of the mouse gene encoding the orphan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SMART; SM00399; ZNF C4; 1.
PROSITE; PS00031; NUCLEAR RECEPTOR; 1.
Alternative splicing; DNA-binding; Nuclear protein; Receptor;
Transcription regulation; Zinc-finger.
                                                                                                                                                                                                                                          receptor TEC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C4-type.
Ligand-binding (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nuclear receptor-type
                                                                                                                  598 QGLQRIFYLKLEDLVSPPSVIDKLFLDTLPF 628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AF191211; AAF05622.1; ---
EMBL; AF191212; AAF05623.1; ---
EMBL; AF191212; AAF05623.1; ---
MGD; MGI:1352457; Nr4a3.
InterPro; IPR001536; Hrmon_recept_lig.
InterPro; IPR001723; Schhrmn_recept_or.
InterPro; IPR001946; Str ncl_receptor.
InterPro; IPR00104; Str ncl_receptor.
Pfam; PF00104; zf-C4; I
PRINTS; PR00104; STRODPINGER.
PRINTS; PR000045; STRODPINGER.
SMART; SM00430; HOLI; 1.
SMART; SM00399; Znf_C44; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Poly-His.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Poly-Gln.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Poly-Ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nuclear receptor TEC.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       353
491
111
115
288
429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99
112
285
420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               subfamily
셤
```

```
Homo sapiens (Human).
                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [1]
SEQUENCE FROM N.A.
TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HUMAN
                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                       111
                                                                                                                                                                                                                                                                                                                             169
                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                  227
                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                        284
                                                                                                                                                                                                                                                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 404
                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABSULT 6
NR42_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                               4
                                                                                                                                                                                                                                        296
                                                                                                                                                                                                                                                                                                                                                                                              536
                                                                                                       116
                                                                                                                235
                                                                                                                                                                                                   236
                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                 415
                                                                                                                                                                                                                                                                                                                  416
                                                                                                                                                                                                                                                                                                                                      475
                                                                                                                                                                                                                                                                                                                                                                                                                 595
                                                                                                                                                                                                                                                                                                                                                                                                                                    596
                                                                                                                                           117 IPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                                                                                       AALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSRSSSGGGTCAVC 295
                                                                                                                                                                                                                                                                                                                                                 417 YSRYCPTDQATAGTDAEHVQQPYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL 476
                                                                 9
                                                                                   9
                                                                                                                                                      477 ELFVLRISIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                                                          FVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHQQQHQQPS
                                                                                                                                                                                 MKAVPTV-AGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLGAAAAAGSQA
                                                                                                                                                                                           GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRCQYCRFQKCLSV
                                                                                                                                                                                                                                                                                                                                                                                                                 CLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTESKVLGALVELRKICT
                                                                                                                                                                                                                                                                                                                                                                                                                           1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                           GDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRNNRCQYCRFQKCLSV
                                                                                                                                                                                                                                                                                                 GMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALVRALTDSTPRDLD
                                                                                                                                                                                                                                                                                                                                      YSRYCPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFL
                                                                                                                                                                                                                                                                                                                                                                           ELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALA
                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
Cases-Langhoff C., Castello A., Martinez-Gonzalez J., Badimon L.
Submitted (OCT-1998) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: Nuclear (By similarity).
-!- SUBCELLULAR Belongs to the nuclear hormone receptor family.
EMBL; AJ011768; CAA09764.1; -.
HSSP; P43354; 10VL.
                                              6
                           DB 1; Length 627;
                                             Indels
       2F49CB4CBDE315A8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=NOR-1;
Sus scrofa (Pig).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Butheria; Cetartiodactyla; Suina; Suidae;
NCBI_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-UNN-2003 (TrEMBLrel. 24, Last annotation update)
Neuron-defived orphan receptor-1 beta.
                          tch 3054; Score 3054:5; DB 1; al Similarity 91.8%; Pred. No. 7.4e-154; 579; Conservative 12; Mismatches 31;
/FTId=VSP_010084
                                                                                                                                                                                                                                                                                                                                                                                                                                                     596 LGLORIFYLKLEDLVSPPSIIDKLFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                597 QGLQRIFYLKLEDLVPPPSVIDKLFLDTLPF 627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ą
         68454 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
          Š.
          627
                                                                                                      61
                                                                                                                        61
                                                                                                                                                                                                                                                                                                                  357
                                                                                                                                                                                177
                                                                                                                                                                                                                      236
                                                                                                                                                                                                                                       237
                                                                                                                                                                                                                                                                                                                                                                                                                 536
         SEQUENCE
                                                                                                                                                                                                                                                           296
                                                                                                                                                                                                                                                                              297
                                                                                                                                                                                                                                                                                                 356
                                                                                                                                                                                                                                                                                                                                      416
                           Query Match
                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      097727
                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FT
                                                                                  셤
                                                                                                     ઠે
                                                                                                                     В
                                                                                                                                         ઠે
                                                                                                                                                        ద
                                                                                                                                                                           ò
                                                                                                                                                                                                셤
                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

```
283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 AAAAAAAGSQAAALEGHPYGLPLAKRAAALAFSPIGLTTSPTTSSLIGESPSLPSPNR 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSLPLG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPVCMMALV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 FVEGYSSNYELKPSCVYQMQ----RPLIKVEEGRAPSYHHHHHHHHHHHHHHQQ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -- OHQQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---AAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPPSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MPCVQAQYSPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPSIST
                                                                                                                                                                                                                                                                                 Probon, PD000015; Znf C4steroid; 1.
SWART, SM00399; ZnF C4; 1.
PROSITE; PS00011; NUCLEAR RECEPTOR; 1.
DNA-binding; Metal-binding; Nuclear protein; Receptor; Transcription regulation; Zinc, Zinc-finger.
SEQUENCE 446 AA; 47716 MW; E21960657606FB92 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              uclear receptor NURR1) (Transcriptionally inducible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17;
GO; GO:0005634; C:nucleus; IEA.

GO; GO:0004079; F:ligand-dependent nuclear receptor activity;
GO; GO:0003700); F:Lranscription factor activity; IEA.
GO; GO:0003700); F:transcription factor activity;
GO; GO:0006355; P:regulation of transcription, DNA-dependent;
InterPro; IPR003072; NORI_receptor.
InterPro; IPR001602; Znf_C4steroid.
Pfam; PF00105; Zf-C4; 1.
PRINTS; PR01105; Zf-C4; 1.
PRINTS; PR01284; NORUCLEARECPTR.
PRINTS; PR01284; NORUCLEARECPTR.
PRINTS; PR0047; STROIDFINGER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2; Length 446;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62.9%; Score 2099.5; DB 2
89.9%; Pred. No. 1.8e-103;
iive 9; Mismatches 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation update)
or NR4A2 (Orphan nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Orphan nuclear receptor NR4A2 (Orphan n (Immediate-early response protein NOT) nuclear receptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=NR4A2; Synonyms=NOT, NURR1, TINUR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P43354; Q16311;
01-NOV-1995 (Rel. 32, Last seq
01-NOV-1995 (Rel. 32, Last seq
25-OCT-2004 (Rel. 45, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RALTDSTPRDLDYSR 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 391; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
```

φ

PIR; A57040; A57040. PDB; 1OVL; X-ray; A/B/C/D/E/F=328-598. TRANSFAC; T02742; -

Genew; HGNC:7981; NR4A2. H-InvDB; HIX0002518; -. MIM; 601828; -.

TRANSFAC;

AB01943; BAA7728.1; -. BC009288; AAH09288.1; -. S77154; AAB33999.1; -. 457040; AF70A

```
Min; 601828; -.

R GO; GO:0005534; C:nucleus; TAS.

R GO; GO:0004979; F:ligand-dependent nuclear receptor activity; TAS.

R GO; GO:0004979; F:ligand-dependent nuclear receptor activity; TAS.

R GO; GO:0004973; P:ligand-dependent nuclear receptor activity; TAS.

R GO; GO:0019735; P:antimicrobial humoral response (sensu Verte. . .; TAS.)

R InterPro; IPR001036; Hrmon_recept_lig.

R InterPro; IPR00104; Str_ncl_receptor.

R InterPro; IPR00104; Str_ncl_receptor.

R FEAM; PF00104; Hormone_recept; 1.

R FINTS; PR00109; STRDHORMONER.

R RINTS; PR00109; STRDHORMONER.

R PRINTS; PR00109; ATR C4; 1.

R RNART; SM00130; LIF C1; 1.

BR SMART; SM00130; LIF C1; 1.

BR SMART; SM00130; LIF C4; 1.

BR SNART; SM00130; NUCLEAR_RECEPTOR; 1.

R PROSITE; PS00031; NUCLEAR_RECEPTOR; 1.
        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Attaubberg R.L., Feingold E.A., Grouse L.H., Derged J.G.,
Riausner R.D., Collins F.S., Wagner L.H., Shenmen C.M., Schuler G.D.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bahat N.K.,
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bahat N.K.,
Appkins R.F., Jordan H., Moore T., Mang J., Hsieh F.,
Biatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Biatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Brownstein M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
Bossk S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunzatne P.H.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gaby L.J., Hulyk S.W.,
Villalon D.K., Muzny D.M., Sodergren B.J., Lu X., Ginbbs R.A.,
Richards S., Worley K.C., Hale S., Garcia A.M., Gaby L.J., Hulyk S.W.,
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
Beneration and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE-95221893, PubMed=7706727,
MEDLINE-95221893, PubMed=7706727,
MEDLINE-95221893, PubMed=7706727,
MEDLINE-95221893, PubMed=7706727,
MEDLINE-95221893, PubMed=7706727,
MEDLINE-95221893, MEDLINE-";
MEDLINE-95221893, MEDLINE-";
MEDLING-1 154:3871-3879[1995].
MEDLING-1 154:3871-3879[1995].
MEDLING-1 154:3871-3879[1995].
MEDLING-1 154:3871-3879[1995].
MEDLING-1 154:3879[1995].
MEDLING-1 154:3879[1995].
MEDLING-1 155:3879[1995].
MEDL
                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE-99234103; PubMed-10216261; DOI-10.1016/S0378-1119(99)00064-5;
TOY11 T., Kawarai T., Nakamura S., Kawakami H.;
"Organization of the human orphan nuclear receptor Nurrl gene.";
                                                                                                                                                                                TISSUE=Fibroblast;
MEDILTNE-9931404; PubMed=10216562; DOI=10.1016/S0378-1119(99)00065-7;
IChinose H., Obye T., Suzuki T., Sumi-Ichinose C., Nomura T.,
Hagino Y., Nagatsu T.;
"MoLecular cloning of the human Nurr1 gene: characterization of the human gene and cDNAs.";
Gene 230:233-239(1999).
                                                           ဌ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
MEDLINE=95183071; PubMed=7877627; DOI=10.1210/me.8.11.1583; Mages H.W., Rilke O., Bravo R., Senger G., Kroczek R.A.; "NOT, a human immediate-early response gene closely related steroid/thyroid hormone receptor NAKI/TR3.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                       Mol. Endocrinol. 8:1583-1591 (1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sednences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gene 230:225-232(1999)
                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and mouse cDNA
```

598 AA;

CONFLICT

Nuclear receptor-type.

regulation; Zinc-finger.

Transcription

DOMAIN DOMAIN

DNA\_BIND ZN\_FING ZN\_FING DOMAIN DOMAIN

Gln-rich. Pro-rich.

```
106 ----LPPQS---EEMMPHSGSVYYKPSSPPTPTTPGFQVQHSPMMDD------PGS 148
                                                                                                                                                                          SISTFVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQH 112
                                                                                                                                                                                                                                                              113 QQPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP 171
                                                                                                                                                                                                                                                                                                                                                    LLDPPMKAVPT-----VAGARFPLFHFKPSPPHPPA-------PSPAG 207
                                                                                                                                                                                                                                                                                                                                                                                             149 LHNFHQNYVATTHMIEQRKTPVSRLSLFSFKQSPPGTPVSSCQMRFDGPLHVPMNPEPAG 208
                                                                                                                                                                                                                                                                                                                                                                                                                                        208 GHHLGYDPTAAAALSLPLGAAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPT 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASQLL -- DTQVPSPPSRGSPSNEGLCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEP 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       387 SQPSPPSPPICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTA 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               353 QEPSPPSPPVSLISALVRAHVDSNPAMTSLDYSRFQANPDYQMSGDDTQHIQQFYDLLIG 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   209 SHHV-------------VDGQTFAVPNPIRKPASMGFPGLQI---GH
                                                                                      1 MPCVQAQYSPSPPGSSYAAQTY----SSEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                                             ASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                           74; Mismatches 121; Indels 108; Gaps
                                                                                                                                                                                                   Length
52.5%; Score 1751; DB 1; 54.5%; Pred. No. 6.7e-85;
                                             Matches 363; Conservative
                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                          57
                                                                                                                                                                                                                     53
                                                                                                                                                                                                                                                                                                                                                    172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  327
  Query Match
                        Local
                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
```

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).

SIMILARITY: Belongs to the nuclear hormone receptor family. NR4

subfamily.

EMBL; X75918; CAA53518.1; -.

임

```
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                       592
                                                             LOCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIT 563
                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUB=Brain;
MEDLINE=91149112; PubMed=1491694; DOI=10.1210/me.6.12.2129;
Law S.W.; Conneely O.M., Demayo F.J., O'Malley B.W.;
Idweltification of a new brain-specific transcription factor, NURRI.";
Mol. Endocrinol. 6:2129-2135(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=129/SvJ;
MEDLINE=97288523; PubMed=9143501; DOI=10.1006/geno.1997.4677;
Gastillo S.O., Xiao Q., Lyu M.S., Kozak C.A., Nikodem V.M.;
"Organization, sequence, chromosomal localization, and promoter identification of the mouse orphan nuclear receptor Nurrl gene.";
Genomics 41:250-257(1997).
-!- FUNCTION: Probable nuclear receptor that regulates gene expression in brain tissue.
                           SIDVSRSWAEKI PGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHR
                                                                                                              SSLKDHQ--SKGQALEPTE-SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         neonates and decreases in the adult. SIMILARITY: Belongs to the nuclear hormone receptor family. NR4
                                                                                                                                                                                                                                                  NR42_MOUSE STANDARD; PRT; 598 AA.

Q06219; OO8659;

Q1-JUN-1994 (Rel. 29, Created)

Q1-JUN-1994 (Rel. 29, Last sequence update)

G5-JUL-2004 (Rel. 44, Last annotation update)

Orbynn nuclear receptor NR4A2 (Orphan nuclear receptor NURR1) (NURrelated factor 1).

Name=NR4A2; Synonyms=Nurr1;
                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE SPECIFICITY: Brain.
DEVELOPMENTAL STAGE: Expression begins in the embryo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [BoId=006219-2; Sequence=VSP_003710, VSP_003711;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IsoId=Q06219-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SUBCELLULAR LOCATION: Nuclear.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; S53744; AAB25138.1; -. EMBL; U86783; AAC53153.1; -. EMBL; U86783; AAC53154.1; -.
                                                                                                                                                                LDTLPF 626
                                                                                                                                                                                       LDTLPF 598
                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=NURR1A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Name=NURR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     subfamily
                                                                                                                                       533
                                    413
                                                            504
                                                                                     473
                                                                                                              564
                                                                                                                                                                621
                                                                                                                                                                                                                                                         셤
                                                           ઠે
                                                                                 ద
                                                                                                             δ
                                                                                                                                 요
                                                                                                                                                               ò
```

```
386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ODPSPPSPPVSLISALVRAHVDSNPAMTSLDYSRPQANPDYQMSGDDTQHIQQFYDLLTG 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QQPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            298 VCLANKOVCPVDKRRRNRCQYCRFQKCLAVGMVKEVVRTDSLKGRRGRLPSKPKS----P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SISTFVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | |||::||:||:||:|||:||| |:|||| |:||||: ::|||| |:|||: sestemdinysatgydykpyclygmenyqqmenyqqhen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------ PGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LLDPPMKAVPT-----VAGARFPLFHFKPSPPHPPA-------PSPAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               149 LHNFHONYVATTHMIEQRKTPVSRLSLFSFKOSPPGTPVSSCOMRFDGPLHVPMNPEPAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GHHLGYDPTAAAALSLPLGAAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SQPSPPSPPICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               444 SIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ASSLLGESPSLPSPPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MPCVQAQYSPSPPGSSYAAQTY----SSEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1746; DB 1; Length 598; Pred. No. 1.2e-84; Pred. No. 1.5p-84; 75; Mismatches 121; Indels 108;
                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00031; NTCLEAR RECEPTOR; 1.
Alternative splicing; DNA-binding; Nuclear protein; Receptor;
Transcription regulation; Zinc-finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pro-rich.
Ligand-binding (Potential).
S -> I (in lsoform NURRIA).
FridavSp 003710.
Missing (In isoform NURRIA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DIACSEBZFFBBD366 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nuclear receptor-type
                                                   GO; GO:0005634; C:nucleus; IDA.
GO; GO:0007399; P:neurogenesis; IMP.
GO; GO:0007399; P:neurogenesis; IMP.
GO; GO:0007399; P:neurogenesis; IMP.
GO; GO:0042053; P:neurogenesis; IMP.
GO; GO:0042053; P:neurogenesis; IMP.
GO; GO:0042053; F:neurogenesis; INP.
InterPro; IPR001723; Stdhrm. receptor.
InterPro; IPR001828; Str.
InterPro; IPR001628; Str.
InterPro; IPR00163; STRDHORNONER.
PRINTS; PR00047; STROIDFINGER.
PRINTS; RR00430; HOLI; I.
SWART; SM00430; HOLI; I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pro-rich.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Gln-rich.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C4-type.
C4-type.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66592 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    52.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
             TRANSFAC; T04312; -. MGD; MGI:1352456; Nr4a2.
HSSP; P43354; 10VL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            598 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 456
                                                                                                                                                                                                                                                                                                                                                                                                               Transcription
DOMAIN 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
DNA BIND
ZN FING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZN FING
ZN FING
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
```

원 ò 8

```
entities requires a license agreement (See http://www.isb-sib.ch/announce/
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SISTFVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQH 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLDPPMKAVPT-----VAGARFPLFHFKPSPPHPPA-------PSPAG 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GHHLGYDPTAAAALSLPLGAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPT 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SQPSPPSPPICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTA 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   106 ----LPPQS----EEMMPHSGSVYYKPSSPPTPSTPGFQVQHSPMWDD-----PGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        113 QOPSIPPASSPEDEVLP-STSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LHNFHQNYVATTHMIEQRKTPVSKLSLFSFKQSRPGTPVSSCQMRFDGPLHVPMNPEPAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ASSLIGESPSIPSPSRSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VCLANKNCPVDKRRRNRCQYCRFQKCLAVGMVKEVVRTDSLKGRRGRLPSKPKS----P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MPCVQAQYSPSPPGSSYAAQTY----SSEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ASQLL -- DTQVPSPPSRGSPSNEGLCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VCLANKNCPVDKRRRNRCQYCRPQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEP
                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00031; NUCLEAR RECEPTOR; 1.
DNA-binding; Nuclear protein; Receptor; Transcription regulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. 4.2e-84; 74; Mismatches 123; Indels 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R -> A (in Ref. 2).
R -> P (in Ref. 3).
S -> P (in Ref. 2).
P -> A (in Ref. 1).
V -> G (in Ref. 1).
LISALVRA -> DOCOROT (in Ref. 2).
D -> S (in Ref. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -> S (in Ref. 2).
0A54ED59FB70DEA8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nuclear receptor-type.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1736; DB 1;
Pred. No. 4.2e-84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C4-type.
Pro-rich.
Ligand-binding (
R -> A (in Ref.
S -> P (in Ref.
S -> P (in Ref.
V -> A (in Ref.
V -> G (in Ref.
                                                                                                                              HSSP; P43354; 10VL.
TRANSPAC; T04743; -.
TRANSPAC; T04743; -.
TRANSPAC; T04743; -.
InterPro; IPR000536; Hrmon recept_lig.
InterPro; IPR001723; Stdhrmn receptor.
InterPro; IPR0018946; Str_ncl_receptor.
InterPro; IPR0018946; Str_ncl_receptor.
InterPro; IPR001808946; Str_ncl_receptor.
Pfam; PF00104; Hormone_recep; 1.
PRINTS; PR00105; ZF.C4; 1.
PRINTS; PR00047; STROIDFINGER.
PRINTS; PR000047; STROIDFINGER.
SWART; SM00430; ADF.C4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pro-rich.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gln-rich
                                                        EMBL; U01146; AAC52143.1; -. EMBL; L08595; AAA42058.1; -. EMBL; U72345; AAC53315.1; -. PIR; I84692; 184692.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               66621 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     52.0%;
54.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 54.2%
Matches 361; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1138
2233
3283
2283
323
3323
1182
1182
255
255
3362
371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               598 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
1127
2263
2263
2346
1409
250
250
250
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zinc-finger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA BIND
ZN FING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                               620
                                                                                                                                       592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Rat nurri is prominently expressed in perirhinal cortex, and differentially induced in the hippocampal dentate gyrus by electroconvulsive vs. kindled selfures."

I differentially induced in the hippocampal dentate gyrus by electromically event and selfures.

I brain Res. Mol. Brain Res. 47:251-261(1997).

-1- FUNCTION: Probable nuclear receptor. May confer liver-specific regulation of delayed-early genes induced later in the GI phase of regeneration along with HRR.

-1- SUBCELLULAR LOCATION: Nuclear.

-1- SUBCELLULAR LOCATION: Nuclear.

-1- TISSUE SPECIFICITY: Not expressed in quiescent liver but is rapidly induced following partial hepatectomy and is specific to hepatic growth as it is not induced in other mitogen-treated cells. Expressed at very low levels in the lung, spleen and scomach and at high levels in the brain.

-1- SIMILARITY: Belongs to the nuclear hormone receptor family. NR4
                                                                                                                                                                                                                                                                                                                             Note: 10.035865;
01-0CT-1994 (Rel. 30, Created)
15-JUL-1999 (Rel. 38, Last sequence update)
15-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
0rphan nuclear receptor NAFA2 (Orphan nuclear receptor NURR1) (NUR-
related factor 1) (Regenerating liver nuclear receptor 1) (RNR-1) (SL-
322) (Nuclear orphan receptor HZF-3).
Name-Nr4a2; Synonyms-HZF-3, Nurr1, Rnr1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               οĘ
                                   LQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIT
                                                                                             SSLKDHQ--SKGQALEPTE-SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scearce L.M., Laz T.M., Hazel T.G., Lau L.F., Taub R.;
"RNR-1, a nuclear receptor in the NGFI-B/Nur77 family that is rapidly induced in recentaring liver.";
J. Biol. Chem. 268:8855-8861(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=Sprague-Dawley; TISSUE=Brain;
MEDLINE=97364974; PubMed=9221923; DOI=10.1016/S0169-328X(97)00056-9;
Xing G.Q., Zhang L.X., Zhang L., Heynen T., Li X.L., Smith M.A.,
Weiss S.R.B., Feldman A.N., Detera-Wadleigh S., Chuang D.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=Sprague-Dawley, TISSUE-Hippocampus, MEDLINE=9431556; PubMed=7914660; DOI=10.1016/0169-328X(94)90235-6; de Ortiz S., Cannon M.M., Jamieson G.A.; Expression of nuclear hormone receptors within the rat hippocampus: identification of novel orphan receptors.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Brain Res. Mol. Brain Res. 23:278-283(1994).
                                                                                                                                                                                                                                                                                                                     598 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Liver;
MEDLINE=93232045; PubMed=8473329;
                                                                                                                                                                          626
                                                                                                                                                                                                                   598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10116;
                                                                                                                                                                          LDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              subfamily.
                                                   473
                                                                                           564
                                                                                                                                                                          621
                                                                                                                                                                                                                                                                                                                   NR42 RAT
                                                                                                                              g
```

105 171

Gaps

326

297

```
Zgc:92696
                                                                                                                                   168
                                                     59
                                                                               113
                                                                                                                                                                                     224
                                                                                                                                                                                                                                       278
                                                                                                                                                                                                                                                                                                                                                                        364
                                                                                                                                                                                                                                                                                                                                                                                                                                                    513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        570
                              57
                                                                                                                                                                                                                                                                                          336
                                                                                                                                                                                                                                                                                                                                                                                                  453
                                                                                                                                                                                                                                                                                                                                                                                                                          424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  бернов
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06DH08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ф6DH08
                        ઠે
                                               ద
                                                                       ò
                                                                                                   셤
                                                                                                                                 ò
                                                                                                                                                      유
                                                                                                                                                                                    ò
                                                                                                                                                                                                           a
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음
503
                                                                472
                                                                                            563
                                                                                                         620
                                                                                                                                                                        592
                                                            SMEIIRGWAEKIPGFADLPKADQDLLFESAFLELFVLRLAYRSNPVEGKLIFCNGVVLHR
                                                                                           LOCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKIT
                                                                                                                                                           533 NCLKDHVTFNNGGLNRPNYLSKLLGKLPELRTLCTQGLQRIFYLKLEDLVPPPAIIDKLF
                                         SIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHR
                                                                                                                                              SSLKDHQ--SKGQALEPTE-SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00031, NUCLEAR RECEPTOR; 1.
DNA-binding; Metal-binding; Nuclear protein; Receptor; Transcription;
Transcription regulation; Zinc, Zinc-finger.
SEQUENCE 600 AA; 66925 MW; BBSFEL69B7DBFBAD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Actinopterygii, Neoperygii, Taleostei, Buteleostei, Neoteleostei, Acanthomorpha, Acanthopterygii, Percomorpha, Atherinomorpha, Beloniforthyidae, Oryziinae, Oryzias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP; P43354; 10VL.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003707; F:stercid hormone receptor activity; IEA.
GO; GO:0003700; F:transcription factor activity; IEA.
GO; GO:0006355; P:requilation of transcription, DNA-dependent; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kapsimali M., Bourrat F., Vernier P.;
Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
--- SUBCELLULAR LOCATION: Nuclear (By similarity).
--- SIMILARITY: Belongs to the nuclear hormone receptor family.
EMBL; AJ27800; CAC27783.1; --- HSSP; P43354; 10VL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50.3%; Score 1677; DB 2; Length 600; 53.7%; Pred. No. 5.5e-81; ive 81; Mismatches 135; Indels 8
                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                   Oryzias latipes (Medaka fish) (Japanese ricefish)
                                                                                                                                                                                                                                                                                          600 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR00036; Hrmon recept 11g.
InterPro; IPR0003070; Nucorph receptor.
InterPro; IPR001070; Nucorph receptor.
InterPro; IPR001073; Stdhrmn receptor.
InterPro; IPR001073; Stdhrmn receptor.
InterPro; IPR001063; Str ncl receptor.
InterPro; IPR001063; Str C4steroid.
Pfam; PP00104; Hormone recep; 1.
                                                                                                                                                                                                                                                                                                                    Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PR01284; NUCLEARECPTR.
PRINTS; PR01287; NURRNUCRCPTR.
PRINTS; PR00398; STRDHORMONER.
PRINTS; PR00047; STRDIDFINGER.
ProDom; PD000035; Znf_C48teroid; 1.
                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                               1-JUN-2001 (TrEMBLrel. 17,
1-JUN-2001 (TrEMBLrel. 17,
1-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                         Nuclear receptor related 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 53.7
Matches 353; Conservative
                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00430; HOLI;
SMART; SM00399; ZnF C
                                                                                                                                                                                               LDTLPF 626
                                                                                                                                                                                                                       LDTLPF 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=8090;
                                                                                                                                                                                                                                                                                                                                                                        Name=nurr1;
                                                                413
               353
                                                                                          504
                                                                                                                    473
                                                                                                                                              564
                                                                                                                                                                                                621
                                                                                                                                                                                                                                                                                         098T03
                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                               RESULT
Q98TQ3
                                                                                                                                                                                                                                                                                            유
                                                            a
                                                                                        ò
                                                                                                                g
                                                                                                                                           ò
                                                                                                                                                                  g
                                                                                                                                                                                                ð
                                                                                                                                                                                                                       d
                                       ઠે
```

19;

Gaps

88;

26

1 MPCVQAQXSBSPPGSSYAAQTXS----SEYTTEIMNPDYTKLTMDLGSTEITATATTSLP

ઠે

```
395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         543
                                                 SISTFVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQH 112
                                                                                                                                                                                                154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDH--- 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 249 QVPSPPSRGSPSNEGLCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               309 VDKRRRNRCQFCRFQKCLVVGMYREVVRTDNLKGRRGRLPSKPKS-----PQEPSPPSPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     396 ICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTASIDVSRSWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  484 WVDAIVEFSSNLQSLDIDISAFSCIAALAMVTERHGLKEPKRVEDLQNKIVNCLKDQVTF
MPCVQAQYGSSPQGASPASQSYSYHTAGEYSCDFLTPEFVKFSMDLTNTEI - -TATTSLP
                                                                                                                                               QQPSIPPASSPEDEVLPSTSMYFKQSPPSTPTTPAFPPQAGALWDEALPSAPGCI-----
                                                                                                                                                                                                102 QOSHLPPQS--EEMIAHTGPMYFKPSSPHAPSTPNFQVQPNHMWED-----PGSLHSFHQ
                                                                                                                                                                                                                                                 ----APGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSL
                                                                                                                                                                                                                                                                                                15 NYVAATSHWME--QRKTPV---SRLSLFFRQSPPGTPVSS----COMRPDG-----
                                                                                                                                                                                                                                                                                                                                                                                                198 PLHVSMTHDNPGAHRGLDGQSFAVPSAIRKQAGLAFP-----HSLQLSHGHQLVDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQRPSQPSPPSPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EKI PGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGE
                                                                                                                                                                                                                                                                                                                                                  PLGAAAAAGSQAA--ALESHPYGLPLA-KRAAPLAFPPLGLTPSPTASSLLGESPSL---
                                                                                                                                                                                                                                                                                                                                                                                                                                                    --PSPPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-27388257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B. Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Uddin T.B., Toshiyuki S., Carninci P., Frange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., MocEwan P.J., McKernan K.J., Malek J.A., Gunararne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gibbs R.A., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Brachydanio-reio (Zebrafish) (Danio rerio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
NCBI_TaxID=7955;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QSKGQALEPTESKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          544 NSGGLNRPNYLSKLLGKLPELRTLCTQGLQRIFYLKLEDLVPPPAIIDKLFLDTLPF
                                                                              Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=zgc:92696;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=Eye;
```

```
MEDLINE-22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RETARREDENE TESTIS.
RETARREDENE R.L., Feingold B.A., Grouse L.H., Derge J.G.,
RETARREDENE R.L., Feingold B.A., Grouse L.H., Derge J.G.,
RALAUSDER R.L., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.)
RALECHUI S.F., Jordan H., Moore T., Max S.L., Wang J., Haite F.,
Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
Stapleton M., Goares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Parage C.,
Raha S.S., Loquellano N.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
Rodards S.A., McEwan P.J., McKernan K.J., Abramson R.D., Mullahy S.J.,
Bosak S.A., McEwan P.J., McKernan K.J., Abramson R.D., Mullahy S.J.,
Richards S., Worlley K.C., Hale S., Garcia A.M., Gabb R.A.,
Richards S., Worlley K.C., Hale S., Garcia A.M., Gibbs R.A.,
Richards S., Worlley K.C., Hale S., Garcia A.M., Gibbs R.A.,
Richards S., Worlley K.C., Shevchenko Y., Bouffard G.G.,
Raha S., Wazny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
Raha S., Maran J., Maran J., Moure B.D., Dickson M.C.,
Raha S., Mara M.J., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
Jones S.J., Marra M.A.,
R. Generation and initial analysis of more than 15,000 full-length human

M. Manden S.J., Marra M.A.,
R. A. Mara M.A., R. M. M. M. M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.A., M.
                                                                                                                                                                                                                                                      485 SSNLQSMSLDVSAFSCIAALTIVTERHGLKEPKKAEELQNKLINCLKDQVSCSGEL--- 540
            521 SINLQSINLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTE
                                                                                                     LPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GO; GO:0005634; C:nucleus; IEA.
GO; GO:0003707; F:steroid hormone receptor activity; IEA.
GO; GO:0003700; F:transcription factor activity; IEA.
GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata, Vertebrata, Euteleostomi,
Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strausberg R.;
Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
-!- SUBCELLULAR LOCATION: Nuclear (By similarity).
-!- SUBLELLULAR ENCATION: to the nuclear hormone receptor family.
EMBL, BCO66899), AAH66890.1, -.
HSSP; P20393; 1A6Y.
                                                                                                                                                                                                                                                                                                                                            626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-UTL-2004 (TrEMBLrel. 27, Created)
05-UTL-2004 (TrEMBLrel. 27, Last sequence update)
05-UTL-2004 (TrEMBLrel. 27, Last annotation update)
Nuclear receptor subfamily 4, group A, member 2, isoform d.
                                                                                                                                                                                                                                                                                                                                                                           SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        535 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000536; Hrmon recept lig.
InterPro; IPR003070; Nucorph_receptor.
InterPro; IPR003073; NURR_receptor.
InterPro; IPR001723; Stdhrmn_receptor.
InterPro; IPR008946; Str ncl_receptor.
InterPro; IPR008946; Str acl_receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rēcep; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR001628; Zn
Pfam; PF00104; Hormone_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                            581
                                                                                                     461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QENXUO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OENXU0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
QENXUO
                                                                                                                                                          셤
                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              106 HQP-----HQAEESIPHTGAIYYKPSSPNISQSPSYPTAPHTWEDTGSLHSFHQNYLA 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  208 ------HRALDS--FALP----APPRKQHGVGLSHSLNVGHPLLESP-VASPQARG 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              251 SPSSEGLCAVCGDNAACQHYGVRTCEGCKGFFRRTVQRNAKYVCLANRNCPVDKRRRNRC 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SISTFVEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHHQQQH 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----HGYHQQQH 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         113 QOPSIPPASSPEDEVLPST-SMYFKQSPPSTPTTPAFPPQAGALWDE--ALPS-APGCIA 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPA----GCHHLGYDPTAAAALSLP 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404 RALTDSTP--RDLDYSRYCPTDQAAAGTDAE-HVQQFYNLLTASIDVSRSWAEKIPGFTD 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26
Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J., Marra M.A., "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                       A Straubberg R.;
Straubberg R.;
Straubberg R.;
Submitted (JUL-2004) to the EMBL/GenBank/DDBJ databases.

-!-SUBMILARITY: Belongs to the nuclear hormone receptor family.

-!-SIMILARITY: Belongs to the nuclear hormone receptor family.

R GO; GO:000570; F:steroid hormone receptor activity; IEA.

R GO; GO:000370; F:steroid hormone receptor activity; IEA.

R InterPro; IPR003076; Hrmon receptor.

R InterPro; IPR003076; Nucorph receptor.

R InterPro; IPR003078; Stdfmm receptor.

R InterPro; IPR003046; Str nol receptor.

R InterPro; IPR003046; Str nol receptor.

R InterPro; IPR003046; Str nol receptor.

R InterPro; IPR003046; Str nol receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PRO1284; NUCLEARECPTR.
PRINTS; PRO1284; NUCLEARECPTR.
PRINTS; PRO1284; NUCREARECPTR.
PRINTS; PRO0398; STRDHORMONER.
PRINTS; PRO0047; STRDHORMONER.
PRINTS; PRO00435; ZTRC "1" (48 teroid; 1.
SMART; SM00430; LOLI; 1.
SMART; SM00430; ZTRC "4; 1.
PROSITE; PS00031; NUCLEAR RECEPTOR; 1.
DNA-binding; Metal-binding; Nuclear protein; Receptor; Transcription; Transcription regulation; Zinc; Zinc-finger.
SEQUENCE 586 AA; 65343 MW; 6A91CD8BC0316769 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MPCVQAQYGTSPPGASPASQSYSYNTTGEYNCDFLTPEFVKFSMDLTNAEI--AVTSSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             225 IGAAAAAGSQAAALESHPYGIPLAKRAAPLAFPPLGLTPSPTASSLLGESPSLPSPSRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MPCVQAQYSPSPPGSSYAAQTYS----SEYTTEIMNPDYTKLTMDLGSTEITATATTSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160 TSHIMDQQRK-----NAMSRLFSFKQSPVDTPMPSCQMRFDGSLHVSMGPDTA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNRC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     345 QYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPS-PPICMMNALV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            311 QYCRPQKCLVVGMVKEVVRTASLKGRRGRLPSKPKSP-----QDIPVSFTPVNLLNALV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 586;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                              Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47.6%; Score 1588; DB 2; I 53.7%; Pred. No. 2.8e-76; ive 74; Mismatches 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00104; Hormone recep; 1.
Pfam; PF00105; zf-C4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 53.7%
Matches 347; Conservative
                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
```

g

ò

셤 ò 셤

ਨੇ

g ò 임

ò

a

ઠે

d

ò

```
NCBI_TaxID=9615;
                                                                                                                                        subfamily.
                                    SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                            DNA BIND
ZN FING
ZN FING
                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                        16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               474
                                                                                                                                                                                                                                                                        271
                                                                                                                                                                                                                                                                                                                              239
                                                                                                                                                                                                                                                                                                                                                                                                                         508
                                                                                                                                                                                                                                                                                                                                                                                                                                          414
                                                                                                                                                                                                                                                                                                                                                                                                                                                             568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     534
                                                                                                                                                          VEGYSSNYELKPSCVYQM----QRPLIKVEEGRAPSYHHHHHHHHHHHHQQQQQQOSI 117
                                                                                                                                                                                              PPASSPEDEVLP-STSMYFKOSPPSTPTTPAFPPQAGALWDEALPSAPGCIAPGPLLDPP 176
                                                                                                                                                                                                                                                   ONYVATTHMIEORKTPVSRLSLPSPKQSPPGTPVSSCOMRFDGPLHVPMNPEPAGSHHV- 149
                                                                                                                                                                                                                                                                                  272 GESPSLPSPPSRSSSSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLAN 331
                                                                                                                                                                                                                                                                                                                                                 KNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSP 391
                                                                                                                                                                                                                                                                                                                                                                                     PSPPICMMNALVRALTDSTP--RDLDYSRY-CPTDQAAAGTDAEHVQQFYNLLTASIDVS 448
                                                                                                                                                                                                                                                                                                                                                                                               |||||: :::|||||| || || ||||||:::
PSPPVSLISALVRAHVDSNPAMTSLDYSRPQANPDYQMSGDDTQHIQQFYDLLTGSMEII 354
                                                                                                                                                                                                        PPQS---EEMMPHSGSVYXKPSSPPTPTTFGFQVQHSPWMDD-----PGSLHNFH 90
                                                                                                                                                                            .----- 43

    - DTQVPSPPSRGSPSNEGLCAVCGDNAACQHYGVRTCEGCKGFPKRTVQKNAKYVCLAN

                                                                                                                                                                                                                                                                                                                                                                                                                                                            GFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKD
                                                                                                                                                                                                                                  177 MKAVPT-----PSPAGGHFPLFHFKPSPPHPPA-------PSPAGGHHLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLR
                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00031; NUCLEAR_RECEPTOR; 1.
DNA-blinding; Metal-blinding; Nuclear protein; Receptor; Transcription;
Transcription regulation; Zinc, Zinc-finger.
SEQUENCE 535 AA; 59808 MW; 41CB735EE1982523 CRC64;
                                                                                                                                                                                                                                                                       213 YDPTAAAALSLPLGAAAAAGSQAAALESHPYGLP-LAKRAAPLAFPPLGLTPSPTASSLL
                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Orphan
                                                                                                                                        102;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Orphan nuclear receptor NR4A1 (Orphan nuclear receptor HMR)
Name=NR4A1; Synonyms=HMR;
Canis familiaris (Dog).
                                                                                                                      Length 535;
                                                                                                                                        Indels
                                                                                                                                                                    47.1%; Score 1572; DB 2; 154.2%; Pred. No. 1.8e-75; 1ive 63; Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      598
       PRINTS; PRO1284; NUCLEARECPTR.
PRINTS; PRO1287; NURBNUCRCPTR.
PRINTS; PRO0398; STRDHORNOURE.
PRINTS; PRO0047; STROIDFINGER.
PRODOM; PRO00035; Znf_Gateroid; 1.
SWART; SM00430; HOLI; 1.
                                                                                                                 Query Match
Best Local Similarity 54.27
Matches 326; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
PF00105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CANFA
                                                                                                                                                                                              118
                                                                                                                                                                                                                44
                                                                                                                                                                                                                                                    91
                                                                                                                                                                                                                                                                                         150
                                                                                                                                                                                                                                                                                                                                                 332
                                                                                                                                                                                                                                                                                                                                                                                    392
                                                                                                                                                                                                                                                                                                                                                                                                                         449
                                                                                                                                                                                                                                                                                                                              182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NR41 CA
P51666;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T 12
CANFA
원
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OSEDITOR
                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                а
                                                                                                                                                                                                                                                                       ሯ
                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   --LRAWTEQLPKASGHPQPPAFFSFSPPTGPSPS-----LAQSPLKLFPSQATC 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         58 ISTFVEGYSSNYELKPSCVYQM---QRPLIKVEEGRAPSYHHHHHHHHHHHHHHHQQHQQ 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57
                                                                                                                                                                                  B) as an early
dog thyrocytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               110 GCYPGPLSGPLDBTLSSSGSDYYGSPCSAPSPSTPSFQPPQLSPWDGSFGPFSPSGTYBG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSL-PLGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLG----ESPSLPSPPSRSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MPCVQAQY---SPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    115 PSIP-PASSPEDEVLPSTSMYFKQSPPS--TPTTPAFPPQAGALWDEAL-PSAPGCIAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                             similarity)
similarity)
Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16;
                                                                                                            MEDLINE=97050607; PubMed=8895335; DOI=10.1210/en.137.11.4691; Pichon B., Jimenez-Cervantes C., Pirson I., Maenhaut C., Christophe D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Score 1371; DB 1; Length 59; Pred. No. 8.6e-65; 81; Mismatches 177; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMART; SM00399; ZnF_C4; 1.
PROSITE; PS00031; NÜCLEAR_RECEPTOR; 1.
DNA-binding; Nuclear protein; Phosphorylation; Receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nosphoserine (by PKA) (By
nosphoserine (by PKA) (By
773563A8EC48F906 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C4-type.
Ligand-binding (Potential)
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata,
Mammalia, Eutheria, Carnivora, Fissipedia, Canidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nuclear receptor-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Phosphoserine
Phosphoserine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Poly-Ser.
Poly-Pro.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              regulation; Zinc-finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000536; Hrmon_recept_lig.
InterPro; IPR001723; Stdhrmn_receptor.
InterPro; IPR0018946; Str_ncl_receptor.
InterPro; IPR001628; Znf_C48teroid.
Pfam; PF00104; Hormone_recep; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PRO0398; STRDHORMONER.
PRINTS; PRO0047; STROIDFINGER.
PRODOM; PD000035; Znf_C4steroid; 1.
SMART; SM00430; HOLI; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X97226; CAA65863.1; -. HSSP; P43354; 10VL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            48.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 48.6
Matches 316; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            327
459
92
586
341
351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       267 23 303 303 409 4 409 4 409 583 583 51 351 351 351 351 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRANSFAC; T04739;
```

318

403 369 460

343

429

520 489

```
GCYPGPRSGPVDEALSSSGSDYYGSPCSAPSPSTPSFQPPQLSPWDGSFGHSSPSQTYEG 169
                                                                                                                                                                217 QLG-----EGESXSM------PTAFPGL----APTSPHLEGSGILDTP-VTSTKARSG 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SINLØSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHQSKGQALEPTE 580
                                                PLIDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLGYDPTAAAALSL-PLGAAA
                                                                                           --LRAWTEQLPKASGPPQPPAFFSFSPPTGPSPS-----LAQSPLKLFPSQATH
                                                                                                                                                                                                                                                   * PGGSEGRCAVCGDNASCQHYGVRTCEGCKGFFKRTVQKNAKYICLANKDCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                     RALIDSTP--RDLDYSRYCPTDQAAAG-TDAEHVQQFYNLLTASIDVSRSWAEKIPGFTD
                                                                                                                                                                                                                                                                                                                                                                                                                            LPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LSPADQDLILESAFLELFILRLAYRSKPGEGKLIFCSGLVLHRLQCARGFGDWIDSILAF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLLG----ESPSLPSPPSRSS
                                                                                                                                                                                                                            SSG--EGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNR
                                                                                                                                                                                                                                                                                                              CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALV
                                                                                                                                                                                                                                                                                                                                                   CQFCRFQKCLAVGMVKEVVRTDSLKGRRGRLPSKPKQP------PDASPANLLTSLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NGFI-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE-2288257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=90173205; PubMed=2626032; DOI=10.1016/0022-4731(89)90114-3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chang C., Kokontis J., Liao S., Chang Y., \footnote{1}{} "Isolation and characterization of human TR3 receptor: a member of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=Fetal skeletal muscle;
MEDLINE=91133413; PubMed=2283997;
Nakai A., Kartha S., Sakurai A., Toback F.G., Degroot L.J.;
"A human early response gene homologous to murine nur77 and
B., and related to the nuclear receptor superfamily.";
Mol. Endocrinol. 4:1438-1443(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ASCLSRLLGKLPELRTLCTQGLQRIFYLKLEDLVPPPFIIDKIFMDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       receptor HMR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-AUG-1991 (Rel. 19, Created)
01-AUG-1991 (Rel. 19, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
05-JUL-2014 (Rel. 44, Last annotation update)
05-JUL-2014 (Rel. 44, Last annotation update)
10-19-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             steroid receptor superfamily.";
J. Steroid Biochem. 34:391-395(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     [2]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HUMAN
      110
                                                171
                                                                                           170
                                                                                                                                                                                                                                                                     259
                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                                                                                                                                                                            319
                                                                                                                                                                                                                                                                                                                                                                                                                                                 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               549
                                                                                                                                                                                                                            286
                                                                                                                                                                                                                                                                                                                                                                                                        404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
NR41_HUMAN
                                    ò
                                                                                  ద
                                                                                                                                  δ
                                                                                                                                                                     셤
                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                     ે
                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21;
318
                                                                                                                                                                                                                                                                     548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQEPSQPSPPSPPICMMNALV 403
                                                                                                                                                                                                  ------PDASPANLLTSLV 369
                                                                                                                                                                                                                                            RALIDSTP--RDLDYSRYCPTDQAAAG-TDAEHVQQFYNLLIASIDVSRSWAEKIPGFTD 460
                                                                                                                                                                                                                                                                                                                                                                                                                        SINIQSINIDIOALACLSALSMITERHGLKEPKRVEELCNKITSSLKDHOSKGOALEPTE 580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ISTFVEGYSSNYELKPSCVYQMQ---RPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQ 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PSIP-PASSPEDEVLPSTSMYFKQSPPS--TPTTPAFPPQAGALWDEAL-PSAPGCIAPG 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             52
                                                                                           APSGSEGRCAVGGDNASCQHYGVRTCEGCKGFFKRTVQKNAKYICLANKDCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                   LPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLHRLQCLRGFGEWLDSIKDF
                                                                                                                                                                                                                                                                                                                                                          --SSGEGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAKYVCLANKNCPVDKRRRNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MPCVQAQY --- SPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zinc; Zinc-finger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels 76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2; Length 598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDKLFLDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-UNV-2003 (TrEMBLrel. 24, Last annotation update)
Hypothetical protein DKFZp451G125.
Name-DKFZp451G125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
41.0%; Score 1368; DB 2; I
Best Local Similarity 48.5%; Pred. No. 1.2e-64;
Matches 315; Conservative 80; Mismatches 179;
                                                                                                                                                                                     --
--
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>-</u>
=
-
-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
TISSUE-Skeletal muscle;
The German cDNA Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                319
                                                                                                                                                                                                                                                                                         370
                                                                  286
                                                                                                                                                       344
                                                                                                                                                                                                                                              404
                                                                                                                                                                                                                                                                                                                                   461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q8N3V2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08N3V2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
08030V2
00030V2
00030V2
001-0C
001-0C
002 Hymper
003 Hymper
003 Hymper
004 Mamma
005 Hymper
005 Mamma
006 Mamma
007 Hymper
007 Mamma
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
008 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper
009 Hymper

                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                         8
                                                                                                                                                     à
                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
Name=NR4A1;
                                                                                                                                                                                                                                                                                                             170
                                                                                                                                                                                                                                                                                                                                                                                                 202
                                                                                                                                                                                                                                                                                                                                                                                                                                            272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OCIBU8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OCIBUS.
                                        셤
                                                                                          Š
                                                                                                                              g
                                                                                                                                                                             ò
                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Bosak S.A., McEwan P.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A., Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A., Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MINITIANDA MANAGORDANA MANAGOR
                                                                                                                                                                                                                                                                                                                                                                                                                     -!- INDUCTION: By growth-stimulating agents.
-!- SIMILARITY: Belongs to the nuclear hormone receptor family. NR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       similarity)
similarity)
                                                                                                                                                                                                                                                                                                                                                    -i- SUBCELLUTAR LOCATION: Nuclear.
-i- TISSUE SPECIFICITY: Fetal muscle and adult liver, brain and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41.0%; Score 1367; DB 1; Length 598; 47.5%; Pred. No. 1.4e-64; ive 74; Mismatches 165; Indels 11:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C4-type.
C4-type.
Ligand-binding (Potential).
Poly-Ser.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00011; NUCLEAR RECEPTOR; 1.
DNA-binding; Nuclear protein; Phosphorylation; Receptor;
Transcription regulation; Zinc-finger.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41DAAEA7C25FDA22 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Phosphoserine (by PKA)
Phosphoserine (by PKA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nuclear receptor-type.
                                                                                                                                                                                                                                                                                     and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002)
-!- FUNCTION: Orphan nuclear receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -> P (in Ref. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  O K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             64463 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; D49728; BAA08565.1; -. EMBL; L13740; AAA36763.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BC016147; AAH16147.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSFAC; T02767; -.
Genew; HGNC:7980; NR4A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      H-InvDB; HIX0010646; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              287
327
459
92
586
341
262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR; A37251; A37251.
HSSP; P43354; 10VL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                262
370
598 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                 thyroid.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
```

23;

Gaps

Indels 112;

Conservative

Best Local Similarity Matches 317; Conserv

```
385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             471
                                                                                                                                                                         58 ISTFVEGYSSNYELKPSCVYQMQ---RPLIKVEEGRAPSYHHHHHHHHHHHHHQQQHQQ 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---LAOSPLKLFPSQATHQLG-----EGESYSM-----PTAFPGL----APTSPHLE 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     242 GSGILDTP-VTSTKARSGAPGGSEGRCAVCGDNASCQHYGVRTCEGCKGFFKRTVQKNAK
                                                                                                                                                                                                                           110 GCYPGPLSGPVDEALSSSGSDYYGSPCSAPSPSTPSFQPPQLSPWDGSFGHFSPSQTYEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G----ESPSLPSPPGRSSSG--EGTCAVCGDNAACQHYGVRTCEGCKGPFKRTVQKNAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MPCIQAQYGTPAPSPGPRDHLA----SDPLTPEFIKPTMDLASPEAAPAAPTALPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         154 -ALWDEALPSAPGCIAPGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              213 YDPTAAAALSL-PLGAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YVCLANKNCPVDKRRRNRCQYCRFQKCLSVGMVKEVVRTDSLKGRRGRLPSKPKSPLQQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PSQPSPPSPPICMMNALVRALTDSTP--RDLDYSRYCPTDQAAAG-TDAEHVQQFYNLLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       563 TSSLKDHQSKGQALEPTE----SKVLGALVELRKICTLGLQRIFYLKLEDLVSPPSIIDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MPCVQAQY---SPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LRAWTEQLPKASG------PPQ-----PPAFFSFSPPTGPSPS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKI
                                                                                                                                                                                                                                                                                                                                               115 PSIP-PASSPEDEVLPSTSMYFKQSPPS--TPTTPAF-PPQAG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     œ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.

Bert L., Schick M., Neubert P., Schatten R., Henze S., Korn B. Submitted (JUN-2004) to the EmBL/GenBank/DDB databases.

-1- SUBJULIAN LOCATION: Nuclear (By similarity)

-1- SIMILARITY: Belongs to the nuclear hormone receptor family. EMBL: CR456704; CAG32985.1; -.

HSSP: P20393; JA6Y.

GO; GO:000534; C:nucleus; IEA.

GO; GO:0003707; F:steroid hormone receptor activity; IEA.

GO; GO:0003700; F:transcription factor activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutele
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        598 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LFLDTLPF 626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :|:|||||
IFMDTLPF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NR4Al protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 15
06 1818
1D Q6 1818
AC Q6 1810
DT 05 -JU
DT 05 -JU
DT 05 -JU
DE NR4A1
GN Name
OC Bukar
OC Bukar
OC Bukar
OC RABIL
RN [1]
RN [1]
RN [1]
RN [1]
RN [1]
RN EEQUE
RR EECUE
``

```
23;
   471
  58 ISTFVEGYSSNYELKPSCVYQMQ---RPLIKVEEGRAPSYHHHHHHHHHHHHQQQHQQ 114
   154 -ALWDEALPSAPGCIAPGPLLDPPMKAVPTVAGARFPLFHFKPSPPHPPAPSPAGGHHLG 212
  202 ---LAQSPLKLFPSQATHQLG------EGESYSM------PTAFPGL----APTSPHLE 241
  272 G----ESPSLPSPPSRSSSG--EGTCAVCGDNAACQHYGVRTCEGCKGFFKRTVQKNAK 325
   326 YVCLANKNCPVDKRRRNRCQYCRPQKCLSVGMVKBVVRTDSLKGRRGRLPSKPKSPLQQE 385
   386 PSQPSPPSPPICMMNALVRALTDSTP--RDLDYSRYCPTDQAAAG-TDAEHVQQFYNLLT 442
  411
   443 ASIDVSRSWAEKIPGFTDLPKEDQTLLIESAFLELFVLRLSIRSNTAEDKFVFCNGLVLH 502
  RLQCLRGFGEWLDSIKDFSLNLQSLNLDIQALACLSALSMITERHGLKEPKRVEELCNKI 562
   563 TSSLKDHQSKGQALEPTE----SKVLGALVELRKICTLGLQRIFYLKLEDLVSPSIIDK 618
   1 MPCVQAQY---SPSPPGSSYAAQTYSSEYTTEIMNPDYTKLTMDLGSTEITATATTSLPS 57
  PRINTS; PRO1285; HMRNUCRECPTR.
PRINTS; PRO1284; NUCLEARECPTR.
PRINTS; PRO1284; NUCLEARECPTR.
PRINTS; PRO1298; STROHORNONER.
PRINTS; PR00047; STROHORNONER.
Prodom; PD000035; Znf C4steroid; 1.
SMART; SM00399; DOLF 1.
PROSTIE; PS00031; NUCLEAR_RECEPTOR; 1.
PROSTIE; PS00031; NUCLEAR_RECEPTOR; 1.
PROSTIE; PS00031; Znf C4; 1.
PROSTIE; PS00031; Znf C4; 1.
PROSTIE; PS00031; Znf C4; 2.
PROSTIE; PS00031; Znf C4; 3.
PROSTIE; PS00031; Znf C4; Znf
   170 LRAWTEQLPKASG------PPQ------PPAFFSFSPPTGPSPS-----
   213 YDPTAAAALSL-PLGAAAAAGSQAAALESHPYGLPLAKRAAPLAFPPLGLTPSPTASSLL
   Gaps
GO:0006355; P:regulation of transcription, DNA-dependent; IEA
   115 PSIP-PASSPEDEVLPSTSMYFKQSPPS--TPTTPAF-PPQAG-------
  Query Match
40.9%; Score 1364; DB 2; Length 598;
Best Local Similarity 47.5%; Pred. No. 2e-64;
Matches 317; Conservative 74; Mismatches 165; Indels 112;
                        InterPro; IPR003071; HMR_receptor.
InterPro; IRR000556; Hrmon_recept_lig.
InterPro; IPR001723; Stdhrmn receptor.
InterPro; IPR001723; Stdhrmn receptor.
InterPro; IPR0019246; Str_ncl_receptor.
InterPro; IPR001628; Ztr_ncl_receptor.
Pfam; PF00104; Hormone recept .
Pfam; PF00105; Zf-C4; I.
  :|:|||||
591 IFMDTLPF 598
   619 LFLDTLPF 626
   503
g
   셤
  엄
  g
   g
  d
  ò
   ઠે
  ò
   ò
   ò
   g
   ò
  g
  δ
  엄
  ò
  g
   ò
  ò
  a
   ò
```

Search completed: March 12, 2005, 17:51:12 Job time : 179 secs